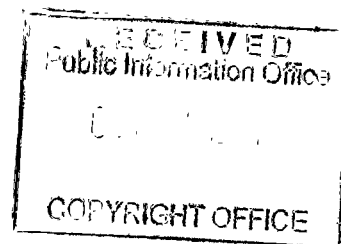


**PUBLIC VERSION**

**Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**



*In re*

**DISTRIBUTION OF CABLE  
ROYALTY FUNDS**

**NO. 14-CRB-0010-CD (2010-13)**

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**CORRECTED WRITTEN REBUTTAL STATEMENT  
OF THE JOINT SPORTS CLAIMANTS**

**Volume I of III**

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Memorandum

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Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.

*In re*

DISTRIBUTION OF CABLE  
ROYALTY FUNDS

NO. 14-CRB-0010-CD (2010-13)

**WRITTEN REBUTTAL STATEMENT  
OF THE JOINT SPORTS CLAIMANTS**

Pursuant to Section 351.11 of the rules of the Copyright Royalty Judges (“Judges”), 37 C.F.R. § 351.11, and the Judges’ orders in this proceeding dated July 21, 2016 (“July 21 Order”) and November 25, 2015 (“November 25 Order”), the Joint Sports Claimants<sup>1</sup> (“JSC”) hereby submit their written rebuttal statement.

**OVERVIEW OF JSC’S WRITTEN REBUTTAL STATEMENT**

The purpose of this proceeding is to allocate among the different Agreed Categories of television programming (as set forth in the November 25 Order) the royalties that cable system operators (“CSOs”) paid to retransmit that programming during 2010–13 pursuant to 17 U.S.C. § 111. All parties agree that the Judges should allocate the royalties based on relative market value, *i.e.*, each Agreed Category should receive the same royalty share that it would have received in a free market absent the Section 111 compulsory license. That approach makes “perfect sense,” as the D.C. Circuit has concluded.<sup>2</sup> While the parties have disagreed as to the

<sup>1</sup> The Joint Sports Claimants are comprised of the Office of the Commissioner of Baseball, the National Football League, the National Basketball Association, the Women’s National Basketball Association, the National Hockey League and the National Collegiate Athletic Association.

<sup>2</sup> *Program Suppliers v. Librarian of Congress*, 409 F.3d 395, 401–02 (D.C. Cir. 2005).

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type of study that best reflects relative market value, this is the first proceeding in the four decade history of Section 111 where *all* parties have either submitted or supported a CSO survey as the basis for allocating cable royalties.

In the last litigated Phase I proceeding, the Judges allocated the 2004–05 cable royalties consistent with the results of CSO surveys conducted by Bortz Media & Sports Group, Inc. (“Bortz”).<sup>3</sup> In the litigated proceeding before that, a Copyright Arbitration Royalty Panel allocated the 1998–99 cable royalties consistent with the 1998–99 Bortz surveys; and the Librarian of Congress and court of appeals affirmed that decision.<sup>4</sup> JSC have offered written direct testimony from multiple witnesses explaining that the Judges should follow the same approach in this proceeding and allocate the 2010–13 royalties consistent with the results of the 2010–13 Bortz surveys. As explained in JSC’s written rebuttal statement, the direct testimony of JSC and all the other Allocation Phase parties confirms that the 2010–13 Bortz surveys provide the best record evidence of the relative market values of all the Agreed Categories.

### JSC REBUTTAL WITNESSES

**James M. Trautman.** Mr. Trautman, Managing Director of Bortz, is as an expert in market research, including survey research and valuation in the cable, broadcast and television programming industries. He previously submitted written direct testimony in this proceeding regarding the methodology, results and history of the 2010–13 Bortz surveys, which show a slightly increased valuation of the live professional and college team sports (“Sports”) category

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<sup>3</sup> *Distribution of the 2004 and 2005 Cable Royalty Funds*, 75 Fed. Reg. 57063, 57066, 57068 (Sept. 17, 2010) (“2004-05 Phase I Determination”) (finding the “Bortz study to be the most persuasive piece of evidence provided on relative value” and concluding that “[t]he Bortz intervals certainly mark the most strongly anchored range of relative programming values produced by the evidence”).

<sup>4</sup> *Program Suppliers v. Librarian*, 409 F.3d at 402 (affirming the CARP and Copyright Office’s “Phase I” decisions to rely upon the Bortz surveys rather than viewing data because the Bortz surveys “adequately measure[] the key criterion of relative market value”).

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over its 2004–05 level. Mr. Trautman’s rebuttal testimony will address the written direct testimony of witnesses who have commented on the Bortz surveys as well as the testimony of Program Suppliers witness Howard Horowitz who offered CSO surveys (“Horowitz surveys”) similar to the Bortz surveys. Mr. Trautman will explain why that testimony does not undermine the results of the 2010–13 Bortz surveys. And he will show that, when corrected for design errors, the Horowitz surveys corroborate the results of the 2010–13 Bortz surveys.

**Mark A. Israel, Ph.D.** Dr. Israel is an economist and Senior Managing Director of Compass Lexecon; he was formerly on the faculty of Northwestern University’s Kellogg School of Management. Dr. Israel specializes in the economics of industrial organization and applied econometrics and has served as an expert both for private parties and the federal government in several matters, including the Comcast-NBCU and AT&T-Time Warner mergers. He submitted written direct testimony in this proceeding concerning his studies of actual marketplace behavior corroborating the 2010–13 Bortz results. This included a regression analysis comparable to those presented in prior proceedings as well as an analysis of cable network programming expenditures. Dr. Israel’s rebuttal testimony explains that the studies and testimony submitted by other parties do not undermine, and generally corroborate, the results of the Bortz surveys and his own studies of actual marketplace behavior.

**Nancy A. Mathiowetz, Ph.D.** Dr. Mathiowetz is an expert in survey research methodology. She is a Professor Emerita, Department of Sociology, at the University of Wisconsin-Milwaukee; she also has served as an Associate Professor, Joint Program in Survey Methodology, at University of Maryland and University of Michigan; and she has frequently testified as to whether survey evidence meets the standards for admissibility under the Federal Rules of Evidence. Dr. Mathiowetz previously submitted written direct testimony in this

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proceeding evaluating the methodology of the 2010–13 Bortz surveys. Her rebuttal testimony will explain why Program Suppliers’ criticisms of the Bortz methodology are wrong; why the Horowitz surveys fail to meet the standards required for a valid and reliable survey; and why the Canadian claimants’ CSO surveys also are flawed.

**William E. Wecker, Ph.D., and R. Garrison Harvey.** Dr. Wecker is President of William E. Wecker Associates, Inc. (“Wecker Associates”), a statistical and applied mathematical consulting firm. Dr. Wecker holds a Ph.D. in statistics and management science, and he has served as a professor on the faculties of the University of Chicago, the University of California, Davis, and Stanford University, where he taught graduate level statistics and applied mathematics. Mr. Harvey, Vice President at Wecker Associates, has a B.S. degree in applied mathematics and a M.S. degree in operations research. Dr. Wecker and Mr. Harvey have extensive expertise in the statistical and mathematical analysis of complex databases used in litigation. They will sponsor a report entitled “Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D.” (“Wecker Report”), which addresses the study by Program Suppliers’ witness Dr. Jeffrey Gray (“Gray study”). The Gray study purports to show the “volume” of distant signal programming purchased by CSOs under the Section 111 license and the “viewing” of that programming, which Dr. Gray equates, without any factual basis, to market value. As explained in the Wecker Report, Dr. Gray’s “volume” calculations are wrong and his “viewing” estimates are wholly unreliable and invalid.

**Susan Nathan.** Ms. Nathan is an expert in media research, including the collection and use of media ratings data. She has over thirty years’ experience in the industry, including service as Senior Vice President, Affiliate Research, Media Currency & Research Operations at Turner Broadcasting (2009–14) as well as with media agencies and The Nielsen Company. She also is a

longstanding member and former Chair of the Media Rating Council (“MRC”), which evaluates audience measurement services to ensure that they are valid and reliable. *See* <http://mediaratingcouncil.org/History.htm>. Ms. Nathan’s rebuttal testimony will explain why the Gray study does not provide reliable or valid measures of distant viewing.

**Allan Singer.** Mr. Singer has twenty years of experience in the cable industry as a programming executive for leading cable system operators including Comcast, Charter and AT&T. He previously submitted direct testimony in this proceeding explaining why the 2010–13 Bortz survey results are consistent with his experience; he also confirmed that the testimony of other industry professionals in prior cable royalty distribution proceedings concerning the unique value of Sports programming applies equally to the 2010–13 period. Mr. Singer’s rebuttal testimony will respond to testimony from other witness regarding the knowledge and decision-making practices of multichannel video programming distributor (“MVPD”) industry professionals and trends in the industry that demonstrate the increased value of Sports programming.

**Daniel M. Hartman.** Mr. Hartman served for fifteen years as a programming executive with DIRECTV, where his responsibilities included negotiating for the rights to carry WGNA, various sports channels, and numerous other program networks. He previously submitted written direct testimony in this proceeding explaining that the 2010–13 Bortz survey results comport with his experience and knowledge in the industry. He will respond to testimony from other witness regarding the relative value of Sports and other programming, the knowledge and decision-making practices of MVPD industry professionals, and trends in the industry.

**Jonda K. Martin.** Ms. Martin is President of Cable Data Corporation (“CDC”), who has submitted testimony on behalf of various parties in this proceeding. Her rebuttal testimony for



JSC will describe data compilations that CDC prepared at the request of JSC and their rebuttal witnesses.<sup>5</sup>

### **SUMMARY OF REBUTTAL TESTIMONY**

#### **A. Rebuttal to the Commercial Television Claimants**

The Commercial Television Claimants (“CTV”) rely primarily on a regression study performed by Dr. Gregory Crawford. Rather than employing sampling, Dr. Crawford’s regression uses a massive data set that encompasses the entire universe of distant signal programming in 2010–13.

Dr. Israel will testify that Dr. Crawford’s regression results corroborate the 2010–13 Bortz survey results, and also are consistent with the econometric studies and market analyses presented in Dr. Israel’s direct testimony. The Bortz surveys, Dr. Israel’s analysis, and Dr. Crawford’s analysis each identify Sports programming as the most valuable category of compensable programming, with similar shares in each case. All three analyses also rank Program Suppliers as the second most valuable category, with CTV third and Public Television (“PTV”) fourth. As Dr. Israel also will testify, the fact that independently conducted regression studies — using different data and making some different econometric implementation decisions — both reached similar results that corroborate the relative shares implied by the Bortz surveys further demonstrates the robustness of those results. Table 1 from Dr. Israel’s rebuttal testimony, showing the royalty shares implied by the Israel, Crawford and Bortz studies, is set forth below.

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<sup>5</sup> JSC are also designating testimony from prior Allocation Phase (Phase I) proceedings, which is found in volumes II and III of JSC’s written rebuttal statement. This testimony also establishes that “viewing” is not an appropriate measure of relative value of the Agreed Categories. And it demonstrates that the Program Suppliers’ witnesses in this proceeding have simply recycled criticisms of the Bortz surveys that Program Suppliers’ witnesses advanced unsuccessfully in prior proceedings.

**Table 1: Comparison of Israel, Crawford and Bortz Results**

<b>Claimant Group</b>	<b>Implied Share of Royalties</b>		
	<b>Israel</b>	<b>Crawford</b>	<b>Bortz</b>
Sports	37.5%	35.1%	38.2%
Program Suppliers	26.8%	23.4%	31.0%
CTV	22.2%	19.5%	20.6%
PTV	13.5%	17.0%	5.1%
Devotional	0.0%	0.7%	4.6%
Canadian	0.0%	4.2%	0.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.00%</b>

Source: Israel Testimony, December 22, 2016, Table V-2;

Crawford Corrected Testimony, April 11, 2017, Figure 20.

Bortz Report, December 22, 2016, Table I-1.

Notes: Israel analysis spans 2010-2012;

Crawford analysis spans 2010-2013;

Bortz analysis spans 2010-2013.

## **B. Rebuttal to the Devotional Claimants**

The Devotional Claimants have not submitted any independent study that can be used to allocate the 2010–13 cable royalties. Instead, they have offered testimony from Dr. Erkan Erdem and Mr. John Sanders generally supporting the Bortz and Horowitz surveys. To the extent that Dr. Erdem and Mr. Sanders suggest that the Horowitz methodology is sound, Mr. Trautman will show that they are wrong. Mr. Trautman also will explain that Dr. Erdem is incorrect in asserting that the Bortz results for the JSC and CTV categories are impacted by the same WGNA program non-compensability issue that makes those results a “ceiling” for the Program Suppliers and Devotional categories. While the majority of Program Suppliers and Devotional programming on WGNA is not compensable (because it was not also carried on the local WGN-Chicago signal), Mr. Trautman will testify that all of the Sports and CTV programming on WGNA was simultaneously broadcast on WGN-Chicago. Thus, the JSC and CTV programming on WGNA was 100 percent compensable. Consistent with the Judges’ conclusion in the 2004–05 Phase I proceeding, the Bortz (and Horowitz) survey results should be

regarded as a ceiling for Program Suppliers and the Devotional Claimants, and a floor for JSC and CTV.<sup>6</sup>

Dr. Erdem and Mr. Sanders also criticize the Israel regression analysis. As Dr. Israel will explain, these criticisms are misguided and reflect a basic misunderstanding of the purpose of the Israel regression. In the 2004–05 proceeding the Judges (and in the 1998–99 proceeding the CARP) relied upon similar regressions as corroborating the Bortz results.<sup>7</sup> Dr. Israel’s testimony will show that his regression (which he largely modeled on the earlier regressions) likewise corroborates the 2010–13 Bortz survey results. Indeed, as Dr. Israel will testify, Dr. Erdem’s alternative versions of the Israel regression provide further support for the results of the 2010–13 Bortz surveys, and reflect the same rank order for the Sports, Program Suppliers, CTV and PTV categories (confirming that Sports is the most valuable programming type). This is shown in Table 3 of Dr. Israel’s rebuttal testimony.

**Table 3: Comparison of Erdem Regression Results with Bortz, Israel and Crawford**

Programming Category	Bortz Survey Average 2010-2013	Israel Regression 2010-2012	Crawford Regression 2010-2013	Erdem	Erdem
				Regression 4B 2010-2012	Regression Average 2010-2012
Sports	38.2%	37.5%	35.1%	45.0%	41.5%
Program Suppliers	31.0%	26.8%	23.4%	22.6%	22.4%
CTV	20.6%	22.2%	19.5%	21.6%	16.3%
PTV	5.1%	13.5%	17.0%	7.0%	7.1%
Devotional	4.6%	0.0%	0.7%	3.8%	2.7%
Canadian	0.5%	0.0%	4.2%	0.0%	0.0%

Source: Israel Testimony, December 22, 2016, Table V-2; Crawford Corrected Testimony, April 11, 2017, Figure 20; Bortz Report, December 22, 2016, Table I-1; Erdem Testimony, March 9, 2017, Exhibit 13

<sup>6</sup> 2004–05 Phase I Determination, 75 Fed. Reg. at 57074.

<sup>7</sup> 2004–05 Phase I Determination, 75 Fed. Reg. at 57068–69; Report of the Copyright Arbitration Royalty Panel to the Librarian of Congress at 21 (Oct. 21, 2003), *aff’d* 69 Fed. Reg. 3606, 3611, 3613, 3615 & 3617 (2004), *aff’d Program Suppliers v. Librarian*, 409 F.3d at 404.

**C. Rebuttal to the Public Television Claimants**

Like the Devotional Claimants, the PTV claimants have not submitted any study that can be used to allocate the 2010–13 cable royalties among all the Agreed Categories. Instead, they have offered testimony from Linda McLaughlin and Dr. David Blackburn, who “adjusted” the 2010–13 Bortz survey results to account for the fact that Bortz did not survey cable systems that carried PTV signals as their only distant signals (“PTV-only systems”). Their adjustment is comparable to those that Ms. McLaughlin made in prior proceedings and results in an increase of approximately three percentage points for PTV (allocated equally among all other Agreed Categories). However, as Mr. Trautman will explain, the McLaughlin/Blackburn adjustment would at most provide a ceiling on PTV’s share. That is because the McLaughlin/Blackburn methodology assumes that all PTV-only systems would allocate 100 percent shares to the PTV category while most PTV-only respondents in the Horowitz surveys actually allocated less than 100 percent to the PTV category. Taking that fact into account would cut the McLaughlin/Blackburn adjustment in half.

McLaughlin and Blackburn also rely on the Horowitz surveys to suggest a greater award than PTV would receive based on their adjustment of the Bortz results. But, as Mr. Trautman will testify, the McLaughlin/Blackburn reliance upon the Horowitz surveys is misplaced because of flaws in the Horowitz surveys that inflate the PTV share. Among other things, Horowitz over-weighted the responses of PTV-only Systems. Moreover, the PTV valuation in the Horowitz surveys is dependent upon the responses from a single outlier respondent in each year — a respondent who valued PTV more highly than virtually every other respondent and (under the Horowitz methodology) accounted for over 36% of the PTV total valuation. Mr. Trautman also will explain that Ms. McLaughlin and Dr. Blackburn improperly calculated the PTV royalty

share by relying upon percentage changes from 2004–05 rather than (as the PTV share has been calculated in prior proceedings) the actual PTV survey share.<sup>8</sup>

**D. Rebuttal to the Canadian Claimants**

The Canadian Claimants presented two studies: a regression focused on the “Canadian region” by Dr. Lisa George, and a survey of CSOs that carried distant Canadian signals by Drs. Gary Ford and Debra Ringold. Neither study provides a royalty share for any party other than the Canadian Claimants. Dr. Israel will testify that Dr. George’s finding of a higher value for Canadian programming than in the Bortz surveys resulted from her improper reliance on a model that collapses all types of programming on U.S. signals into a single catch-all category. After properly controlling for all of the Agreed Categories, her model produces small Canadian shares consistent with the Bortz survey results. Dr. Mathiowetz will testify that the Ford/Ringold survey does not provide a reliable basis for determining the relative value of programming on Canadian distant signals during 2010–13. As the Judges properly determined in the 2004–05 proceeding when it considered a similar Ford/Ringold survey, the Ford/Ringold survey provides at best a ceiling upon the Canadian Claimants’ award.

**E. Rebuttal to the Program Suppliers**

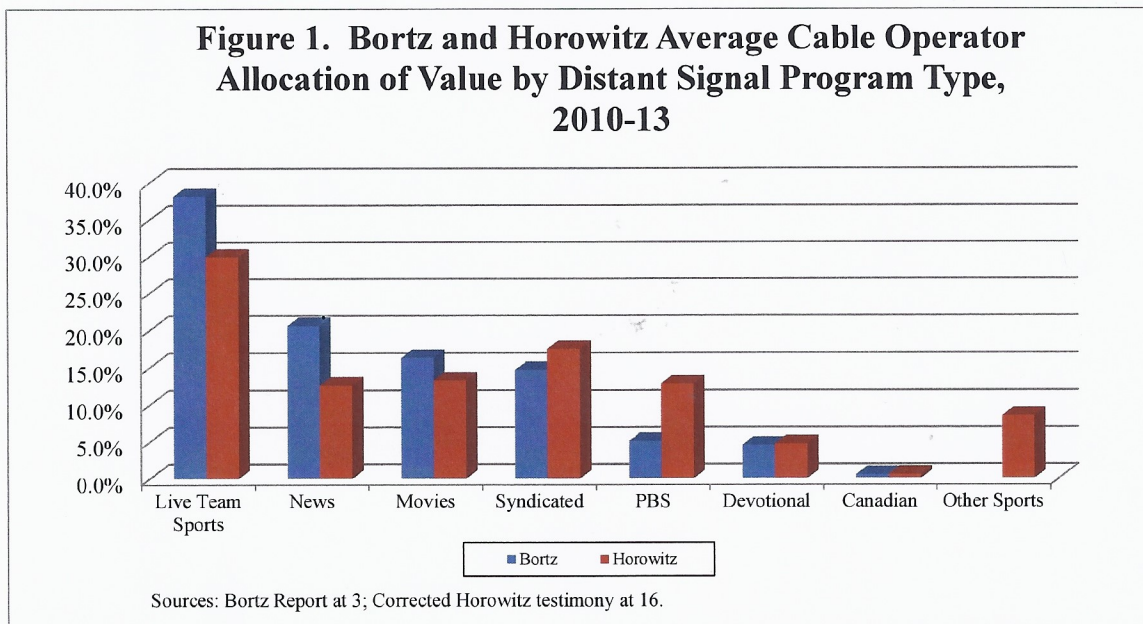
Program Suppliers presented two studies in their direct case: the Horowitz surveys of cable operators and the Gray study of volume and viewing. Both studies suffer from serious flaws, and neither can provide a proper basis for the allocation of the 2010–13 cable royalty funds.

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<sup>8</sup> The PTV Claimants have requested an award of “no less than 20.8 percent of the 2010-13 Basic cable royalty fund.” Yet, as the testimony of Mr. Trautman shows, distant PTV signals generated only about 4.6% of the 2010-13 royalties, close to their share in the 2010-13 Bortz surveys. Moreover, as Mr. Trautman’s testimony shows, PTV signals reached only about 15–17% of cable subscribers on a distant signal basis in 2010–13, and most of those cable subscribers also received distant commercial signals as well.

## 1. The Horowitz Surveys

Mr. Trautman will explain that Horowitz employed similar methodologies to those employed in the Bortz surveys and that the Horowitz surveys are generally consistent with the Bortz surveys — they both find that during the period 2010–13, CSOs accorded live professional and college team sports the greatest relative value of the various types of distant signal programming. This is shown in Figure 1 of Mr. Trautman’s rebuttal testimony.



To the extent that there are differences in the valuation percentages between the Bortz surveys and the Horowitz surveys, those differences, Mr. Trautman will explain, are attributable to significant flaws in Horowitz surveys that biased their results, primarily in favor of the Program Suppliers.

- Horowitz failed to account for the substantial amount of non-compensable Program Suppliers and Devotional programming on WGNA, the most widely carried distant signal during 2010–13; thus, respondents whose systems retransmitted WGNA valued Program Suppliers and Devotional programming that was not entitled to royalties. The Judges previously recognized that the same compensability issue resulted in the 2004–05 Bortz surveys overvaluing Program Suppliers and Devotional

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programming on WGNA. *See* note 6 *supra*. While the 2010–13 Bortz surveys address this issue at least in part, the Horowitz surveys failed to do so.

- Horowitz improperly asked respondents to value a separate (and third) category of Program Suppliers' programming (labeled "Other Sports") — even where their cable systems carried no (or virtually no) such programming. Indeed, approximately half the respondents that Horowitz asked to value "Other Sports" carried only two hours or less per year of that programming on a compensable basis; during three of the years, the only "Other Sports" programming they carried was a single thirty-minute (2011) or one-hour (2012-13) horse race that belongs in the CTV, and not the Program Suppliers, category.
- Horowitz gave respondents misleading examples and descriptions of Program Suppliers programming on WGNA (and other stations), suggesting that the respondents value within the Program Suppliers category programs that their systems did not retransmit on a compensable basis (or at all) or that do not belong in the Program Suppliers category.

Dr. Mathiowetz will testify that the above flaws and others render the results of the Horowitz surveys neither reliable nor valid. As her testimony will explain, the methodology of the Horowitz surveys fails to conform to the standards federal courts have required in determining whether to admit surveys into evidence and thus the Horowitz results should be disregarded. Nevertheless, Mr. Trautman will describe how he has adjusted those results to account, at least in part, for certain of their design flaws. As adjusted, the average valuations in the Horowitz surveys are comparable to, and corroborative of, the 2010–13 Bortz results. This is shown in Table 12 and Figure 5 to Mr. Trautman's rebuttal testimony.



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**Table 12. Horowitz (Adjusted)\* and Bortz Survey Response Comparison, 2010-13**

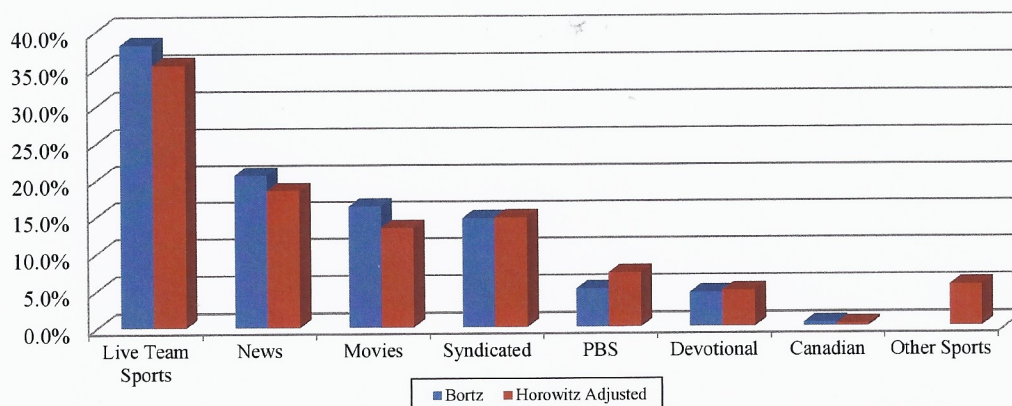
Program Type	2010		2011		2012		2013		Average: 2010-13	
	Horowitz	Bortz	Horowitz	Bortz	Horowitz	Bortz	Horowitz	Bortz	Horowitz	Bortz
Live Team Sports	38.1%	40.9%	32.7%	36.4%	32.4%	37.9%	37.5%	37.7%	35.2%	38.2%
News	19.5%	18.7%	15.6%	18.3%	19.6%	22.8%	18.5%	22.7%	18.3%	20.6%
Syndicated	15.6%	16.0%	17.5%	17.4%	13.4%	13.5%	12.2%	11.8%	14.7%	14.7%
Movies	15.3%	15.9%	15.4%	18.6%	11.6%	15.3%	10.8%	15.5%	13.3%	16.3%
Devotional	4.4%	4.0%	4.9%	4.5%	5.5%	4.8%	4.4%	5.0%	4.8%	4.6%
PTV	2.9%	4.4%	7.0%	4.7%	11.0%	5.1%	11.4%	6.2%	8.1%	5.1%
Canadian	0.0%	0.1%	0.0%	0.2%	0.9%	0.6%	0.4%	1.2%	0.3%	0.5%
Other Sports	4.2%	NA	7.0%	NA	5.6%	NA	5.0%	NA	5.5%	NA
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Columns may not add to total due to rounding.

\*Horowitz WGN-only and WGN/PTV-only responses replaced with Bortz results for those system types; Horowitz PTV-only systems excluded.

Source: Bortz Report at 3; and JSC\_CDC Analysis Version of APKS\_SUMMARYTABLE\_2010-2013\_5SEPT17.xlsx

**Figure 5. Bortz and Horowitz (Adjusted)\* Average Cable Operator Allocation of Value by Distant Signal Program Type, 2010-13**



\*Horowitz WGN-only and WGN/PTV-only results replaced with Bortz results for those system types; Horowitz PTV-only results excluded.

## 2. The Gray Study

Dr. Gray provides estimates of what he terms the “volume” of compensable distant signal programming that CSOs “purchased” during 2010–13 (Gray Table 1) as well as the “viewing” of that programming (Gray Table 2). According to Dr. Gray, “viewing” (as he defines it) is a better measure than “volume” of the relative marketplace value of the different categories of compensable distant signal programming (“Agreed Categories”). Nevertheless, as the Wecker



Report shows, there is not much difference between the two sets of Gray estimates. That is because Dr. Gray's "viewing" estimates are tonnage-based — driven by the volume, and not value, of the programming categories. In urging the Judges to allocate royalties according to "viewing," Dr. Gray effectively seeks a royalty allocation where the share of each Agreed Category is dependent upon the gross number of hours that television stations broadcast their programming.

**Volume.** Dr. Israel's rebuttal testimony and the Wecker Report show that Gray Table 1 does not accurately reflect the volume of compensable distant signal programming that CSOs purchased during 2010–13. Apart from his program categorization errors affecting the JSC volume share, Dr. Gray fails to account for the number of cable systems that retransmitted, and the number of cable subscribers that received, that programming. He treats one hour of programming on WGNA, which reached over 40 million distant subscribers, the same as one hour on any other station. Thus, as Israel/Wecker will explain, at best Gray Table 1 shows only the number of minutes of programming televised by stations that CSOs retransmitted and not the volume of the programming that the CSOs themselves retransmitted and thus "purchased."

Dr. Gray's approach to measuring volume marginalizes the impact of WGNA, the most widely retransmitted distant signal; and it understates the volume of Sports programming retransmitted to distant subscribers. As the Israel testimony and Wecker Report show, the 2010–13 Sports volume share was actually more than six times greater than the less than one percent reflected in Gray Table 1. In other words, Sports' share of the 2010–13 distant signal marketplace was greater than its share of the 2004–05 distant signal marketplace (when its average Section 111 royalty allocation was approximately 35%), and it was even greater than its share of volume on cable networks that, as discussed in Dr. Israel's testimony, devoted as much

as 45% of their program budgets for JSC programming in 2010–13 (between 16 and 22 times JSC’s volume share). As Dr. Israel also will testify, the relative volume of programming in each Agreed Category, even if properly measured, is not an appropriate basis for allocating royalty shares, as some programming minutes are more valuable than others — particularly Sports minutes.

**Viewing.** The D.C. Circuit affirmed the allocation decision of the Librarian and Copyright Office in the 1998–99 proceeding, noting that the Librarian (and CARP) did not act “unreasonably in declining to rely on Nielsen for direct evidence of viewing, as Bortz adequately measured the key criterion of relative market value.”<sup>9</sup> Dr. Gray now urges the Judges to rely upon his “viewing” study rather than the Bortz surveys. Program Suppliers witness Ms. Jane Saunders says that the Judges should do so because they relied upon viewing data in Phase II proceedings where the other Allocation Parties (other than the Devotional Claimants) did not present evidence and because foreign tribunals supposedly do so.<sup>10</sup> JSC’s rebuttal testimony will show (as their direct testimony has shown) that Dr. Gray’s so-called “viewing” estimates do not provide a proper basis for determining the relative values of the Agreed Categories.

*First*, as Dr. Israel will testify, Dr. Gray’s analysis is fundamentally flawed because it fails to account for the fact that minutes of different types of programming have significantly different market values. Empirical data on actual marketplace behavior show that measures of viewership do not translate into value. Rather, Dr. Israel’s regression and his analysis of cable network programming expenditures confirm that some types of content — and in particular

---

<sup>9</sup> *Program Suppliers v. Librarian*, 409 F.3d at 402 (“[A]s the CARP put it, Bortz ‘subsumes *inter alia* all viewing data that a CSO might consider when assessing relative value of programming groups’”).

<sup>10</sup> Written Direct Testimony of Jane Saunders at 6–7 (Dec. 22, 2016).

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Sports programming — command more money per unit of viewing than other types of programming. Testimony from JSC witnesses who have had actual marketplace experience negotiating for programming rights (Messrs. Singer and Hartman) will confirm that the price MVPDs pay for Sports programming is much greater than Nielsen ratings would suggest. As their testimony further illustrates, viewership data are particularly insignificant in the distant signal marketplace for determining rights fees because MVPDs are not able to substitute advertising on distant signals (as they can do on cable networks).

*Second*, even if one assumes that viewing data have any relevance to the allocation issue before the Judges, the Gray study does not provide a valid or reliable measure of such viewing. The Gray study relies upon a subset of the data Nielsen originally collected for its National People Meter (“NPM”) sample provided to Dr. Gray by Mr. Paul Lindstrom, formerly of Nielsen. As Ms. Nathan and the Wecker Report explain, Dr. Gray improperly used the NPM data in a way they were never designed to be used. NPM data provides only estimates of nationwide audiences for nationally televised programs, and not estimates of viewing in particular geographic markets (including “distant” markets), as the Gray study incorrectly assumes. In Ms. Nathan’s expert judgment, Dr. Gray’s Table 2 estimates of “viewing” of distant signal programming are unreliable and invalid.

*Third*, the inadequacy of the Lindstrom data for purposes of the Gray study is manifestly apparent when one considers what Mr. Lindstrom actually provided (or did not provide) to Dr. Gray. Dr. Gray sought distant viewing data for approximately 17.4 million quarter-hours of programming on his sample stations. But, as the Wecker Report details, Mr. Lindstrom had distant viewing data for only 6% of those quarter-hours. Stated otherwise, Mr. Lindstrom did not provide Dr. Gray any distant viewing data for 94% of the quarter-hours on Gray’s sample

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stations. Recognizing the paucity of data he received from Mr. Lindstrom, Dr. Gray devised his own regression for measuring distant viewing on all the sample stations — replacing even the distant viewing data he did receive from Mr. Lindstrom with his own estimates — based upon a series of questionable assumptions that he never identifies in his direct testimony. Dr. Gray also says he used his regressions to measure distant viewing based upon “local” viewing data, but fails to note that Lindstrom provided no “local” viewing data for approximately 61% of the programming records that Gray sought.

*Fourth*, as the Wecker Report also shows, the results of Dr. Gray’s regression effectively mirror the incomplete data he received from Mr. Lindstrom. His regression analysis results in shares for each of the Agreed Categories that are not much different than the shares that would have been produced by relying upon the incomplete Lindstrom data. However, Program Suppliers do receive approximately 6 percentage points more under the Gray regressions than they would receive under the raw Lindstrom data alone.

*Fifth*, the inadequacy of the Lindstrom audience data is perhaps most apparent when one considers the data that Mr. Lindstrom provided for WGNA and how that data compares to audience data Nielsen routinely provides to its clients. Although (as noted) WGNA reached over 40 million cable households on a distant basis during 2010–13, Mr. Lindstrom told Dr. Gray that virtually no one viewed any of the WGNA programming. For example, the Lindstrom data shows that in 2013 no NPM households viewing any programming on WGNA other than a single minute of a 2013 Bulls game. However, as the Wecker Report explains, Nielsen has provided Major League Baseball with a report showing that on average 140 thousand cable households viewed each minute of the Sports programming on WGNA during 2010–13 — more than double the average number of distant cable households that viewed the compensable

Program Suppliers programming on WGNA. There is a complete disconnect between the Lindstrom data and the MLB Nielsen data.

*Finally*, JSC's rebuttal testimony will show that Dr. Gray's viewing study leads to inherently incredible results if translated into royalty shares. As the Wecker report shows, equating Dr. Gray's viewing shares with royalty shares would mean that the Program Suppliers would receive over \$30 million in 2010–13 cable royalties just for the infomercials that are within their Agreed Category — or about \$10 million more than Sports would receive for all its programming. Likewise all the programming on WGNA would receive approximately one percent of the 2010–13 cable royalties, even though WGNA accounted for more than three-quarters of the fees generated by all distant signals during 2010–13. As the Wecker report explains, Dr. Gray's regressions result in an inflated Program Suppliers' royalty share because they have the effect of overvaluing stations that receive relatively little distant signal carriage at the expense of those (like WGNA) that reached a much larger base of distant subscribers.

### **3. Other Program Suppliers Witnesses**

In addition to their two studies, Program Suppliers presented testimony from witnesses who criticized the use of cable operator surveys (Dr. Joel Steckel), discussed developments in sports media (John Mansell), and made various assertions about the MVPD industry, the factors used in programming decisions, and the role of viewing data (Sue Ann Hamilton, Jan Pasquale, Jane Saunders). As discussed in the rebuttal testimony of Dr. Mathiowetz, Dr. Israel, Mr. Hartman and Mr. Singer, Dr. Steckel's criticisms simply recycle arguments made in prior proceedings and are without merit. Cable operator surveys appropriately focus on the buyers in the hypothetical market — CSOs — and are not unduly complex as they are administered to industry professionals, not lay persons. Dr. Israel, Mr. Hartman and Mr. Singer will explain why, contrary to Mr. Mansell's claims, the relative value of Sports programming in the distant

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signal marketplace has not declined, and indeed has increased over time as new platforms and technologies have eroded the value of Program Suppliers' content. And Mr. Hartman and Mr. Singer will refute Program Suppliers' assertions regarding the MVPD decision-making process from the perspective of their experience as programming executives at leading MVPDs.

**CONCLUSION**

The testimony submitted by the other parties does not refute, and in large part corroborates, the results of the 2010–13 Bortz surveys and other evidence submitted by JSC in its Written Direct Statement. Accordingly, the Judges should award JSC no less than the 2010–13 cable royalty shares JSC requested in their December 22, 2016 Written Direct Statement.

Respectfully submitted,

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I hereby certify that on this 15th day of September, 2017, a copy of the foregoing WRITTEN REBUTTAL STATEMENT OF THE JOINT SPORTS CLAIMANTS was filed electronically using eCRB, which will automatically provide electronic service copies to all counsel of record who are registered to use eCRB. *See* 37 C.F.R. § 350.6(h)(1). Additionally, an electronic copy of this filing has been sent via email to the counsel listed below.

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Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.

*In re*

DISTRIBUTION OF CABLE  
ROYALTY FUNDS

NO. 14-CRB-0010-CD (2010-13)

Written Rebuttal Testimony of

JAMES M. TRAUTMAN

September 15, 2017

Corrected October 5, 2017

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**Written Rebuttal Testimony of  
JAMES M. TRAUTMAN**

**I. Qualifications**

I am Managing Director of Bortz Media & Sports Group, Inc. (Bortz). I have submitted written direct testimony in this proceeding on behalf of the Joint Sports Claimants (JSC), sponsoring the report entitled “Cable Operator Valuation of Distant Signal Non-Network Programming: 2010-13” (dated December 22, 2016) (Bortz Report). The Bortz Report discusses the methodology, results and history of the 2010-13 cable operator surveys that Bortz conducted for JSC (Bortz surveys) as well as the significance of the superstation WGN America (WGNA) in the 2010-13 distant signal marketplace. Appendix A to my written direct testimony sets forth my qualifications as an expert in market research – including survey research and valuation in the cable, broadcast and television programming industries.

**II. Introduction and Summary**

The purpose of my rebuttal testimony is to address the written direct testimony of other witnesses in this proceeding who have commented on the prior and current Bortz surveys and offered similar cable operator surveys: (1) Howard Horowitz and Dr. Martin Frankel on behalf of the Program Suppliers; (2) Dr. Erkan Erdem on behalf of the Devotional Claimants; and (3) Linda McLaughlin and Dr. David Blackburn on behalf of the Public Television Claimants (PTV).

1. The testimony of Howard Horowitz discusses the methodology and results of cable operator surveys conducted by Horowitz Research (Horowitz) for each of the years 2010-13. Mr. Horowitz states that these surveys were “designed to carefully replicate the methods and procedures of the Bortz Survey that was done for the 2005 royalty year.” *See* Corrected April

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25, 2017 Direct Testimony of Howard Horowitz (Corrected Horowitz testimony) at 3. However, the Horowitz surveys depart from the Bortz survey methodology in certain respects and contain significant flaws that lead to biased results, primarily in favor of the Program Suppliers.

Horowitz failed to account for the substantial amount of non-compensable Program Suppliers (and Devotional) programming on WGNA, the most widely carried distant signal in 2010-13; thus, respondents whose cable systems retransmitted WGNA valued Program Suppliers (and Devotional) programming that was not entitled to any share of Section 111 royalties. Horowitz also improperly asked respondents to value a separate (and third) type of Program Suppliers' programming (which it termed "Other Sports") – even where their cable systems carried virtually no such programming on a distant signal basis during the years 2010-13. Indeed, approximately one-half of the respondents who Horowitz asked to value "Other Sports" carried WGNA as their only commercial distant signal, and WGNA televised less than two hours of "Other Sports" per year during 2010-13. Moreover, Horowitz gave respondents misleading examples and descriptions of Program Suppliers programming on WGNA (and other stations), suggesting that the respondents value within the Program Suppliers category programs that their systems did not carry at all or did not retransmit on a compensable basis, or that do not belong in the Program Suppliers category.

2. Dr. Erdem says that the JSC and Commercial Television (CTV) categories also are affected by the WGNA non-compensable programming issue. However, consistent with the Copyright Royalty Judges' (Judges') conclusion in the 2004-05 cable royalty distribution proceeding, the respondents' consideration of non-compensable programming on WGNA means that both the 2010-13 Bortz and Horowitz survey results should be regarded as a ceiling for Program Suppliers and the Devotional Claimants and a floor for JSC and CTV. That is because

the JSC and CTV content on WGNA was 100% compensable while the Program Suppliers and Devotional content on WGNA was mostly non-compensable. Dr. Erdem's contrary conclusion is predicated upon a fundamental misunderstanding of the WGNA programming data he reviewed.

Dr. Erdem also misconstrues certain problematic language in the Horowitz questionnaires as methodological improvements. Moreover, he correctly acknowledges the misuse of program examples in the Horowitz surveys. But he understates and mischaracterizes the implications of Horowitz's improper examples – particularly with respect to the benefits that it conferred upon both Program Suppliers and the Devotional Claimants.

3. Ms. McLaughlin and Dr. Blackburn have adjusted the 2010-13 Bortz survey results to account for the fact that Bortz did not survey cable systems that carried Canadian signals or non-commercial signals as their only distant signals. These adjustments, however, provide a "ceiling" on the PTV and Canadian shares in the 2010-13 Bortz surveys. Indeed, most of the Horowitz respondents whose systems carried non-commercial signals as their only distant signal (PTV-only Systems) allocated less than 100% to the PTV category; the Horowitz survey results thus support a lower adjustment to the Bortz results than the maximum calculated using the McLaughlin/Blackburn methodology which assumes a 100% allocation to the PTV category by PTV-only Systems. The McLaughlin/Blackburn calculation of the 2010-13 PTV award also is inconsistent with the manner in which the Judges calculated the PTV award in the 2004-05 proceeding.

McLaughlin/Blackburn have relied in part on the results of the Horowitz surveys to advocate for a higher PTV award than is reflected in the McLaughlin/Blackburn adjustment of the Bortz results. In doing so, they overlook several fundamental flaws in the Horowitz surveys

that underlie the PTV results. These flaws include over-weighting of PTV-only Systems and dependence on outlier responses from a single respondent, in each year, who completed 15 to 23% of the Horowitz survey questionnaires. It also appears that Horowitz interviewers may have instructed respondents to value hundreds of signals for which they paid no Section 111 royalties. McLaughlin/Blackburn's further reliance upon changes in "distant subscriber instances" to support an increased PTV award is misplaced because those changes do not reflect changes in relative market value.

4. I have adjusted the results of the Horowitz surveys to account, at least in part, for the design flaws discussed herein. As adjusted, the average valuations for each of the Agreed Categories of Claimants (Agreed Categories) (*see* Bortz Report at Appendix E) in the 2010-13 Horowitz surveys are comparable to, and corroborative of, those in the 2010-13 Bortz surveys, i.e., within three percentage points or less for each category. To the extent that material differences remain between the 2010-13 Bortz and Horowitz results, I believe that those differences are attributable to the uncorrected flaws in the Horowitz surveys. Even as adjusted, the Horowitz results (like the Bortz results) overstate the value of the Program Suppliers and Devotional categories at the expense of JSC and CTV given the significant amount of non-compensable Program Suppliers and Devotional programming on WGNA.

### **III. Testimony of Howard Horowitz and Dr. Martin Frankel**

#### **A. The Horowitz and Bortz Surveys Employ Comparable Methodologies and Each Shows that Cable Operators Valued Live Team Sports More Highly Than Any Other Distant Signal Program Type**

The 2010-13 Horowitz and Bortz surveys are similar in several respects. They both use a stratified sampling approach as the basis for selecting a random sample of cable systems to be surveyed, with the stratification tied to the amount of Section 111 royalties that the systems paid.

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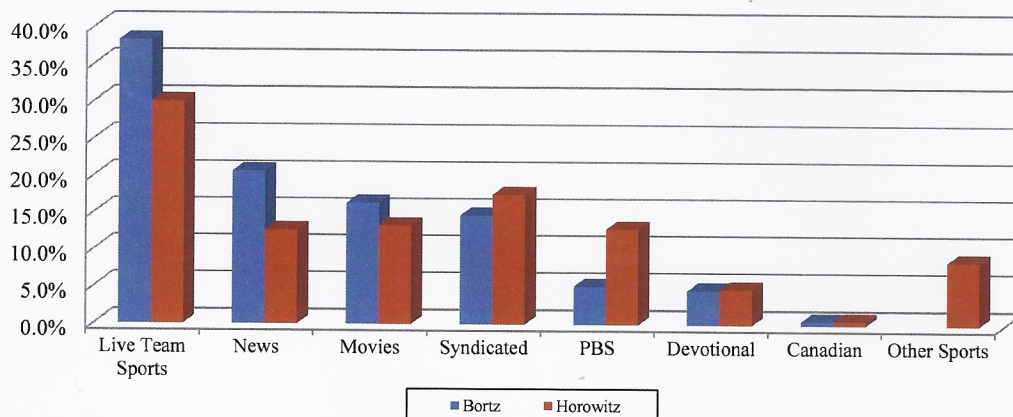
In both instances, survey response rates are well above industry norms; and responses are weighted so that each survey's key findings are projectable to all Form 3 systems, which account for over 98 percent of 2010-13 royalties. Both surveys expressly identify the distant signals that the cable systems carried, as reported on the statements of account they filed with the Copyright Office, and focus the respondents' attention on those distant signals. Both use preliminary questions designed to ascertain respondent perceptions about the importance of the different types of programming on those signals. And both employ a constant sum question to obtain a relative value allocation for each of the different program categories on the distant signals.<sup>1</sup>

The two surveys also show that live telecasts of professional and college team sports ("Live Team Sports") received the largest relative value allocation of any single program type measured in all four years. As illustrated in Figure 1, the average value allocated to Live Team Sports in both surveys was more than 70 percent greater than the average value allocated to any other program type.

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<sup>1</sup> The Canadian Claimants also have submitted cable operator surveys for the years 2010-13 that employ a constant sum question to ascertain relative value (as they have in the past). (See Dr. Gary T. Ford and Dr. Debra J. Ringold, "The Value of Canadian Programming to Cable Systems in the United States in 2010, 2011, 2012 and 2013" (Dec. 8, 2016).) However, their surveys address only the small subset of systems that carried distant Canadian signals during 2010-13 – a "universe" of only 27 to 41 systems in these four years which provided Canadian distant signals to only about 4.5% of all cable subscribers that received distant signals. See Appendix Table A-1. These surveys do not provide a basis for determining the shares of other Allocation Phase Parties.

**Figure 1. Bortz and Horowitz Average Cable Operator Allocation of Value by Distant Signal Program Type, 2010-13**



Sources: Bortz Report at 3; Corrected Horowitz testimony at 16.

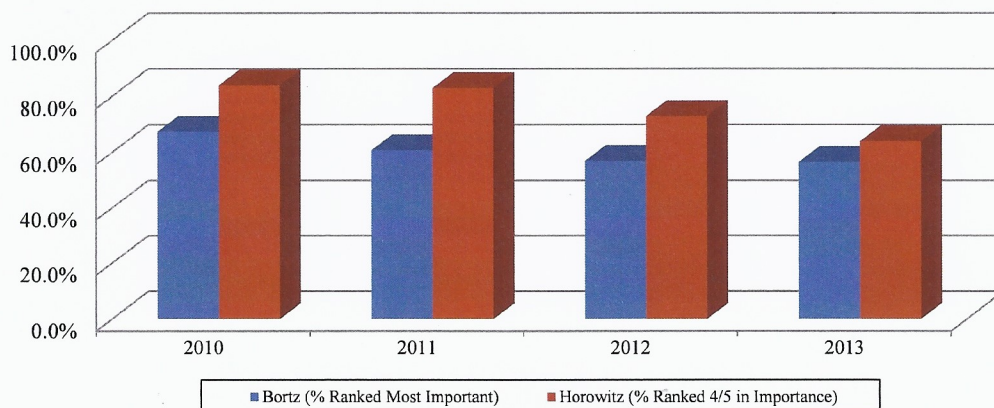
The Horowitz surveys also show that cable systems attach relatively greater importance to Live Team Sports programming. Specifically, between 64 percent and 84 percent of respondents ranked Live Team Sports as four or five (on a five point scale with five being “very important”) in terms of importance to subscribers, a far higher proportion than for any other program type. *See* Corrected Horowitz testimony at 19-20. The Horowitz importance rankings are similar to the results for the Bortz survey question which asked respondents to rank the importance to their system of offering each of the program types. On this question, between 57 and 68 percent of the Bortz respondents ranked Live Team Sports as the most important type of distant signal programming for their system to offer. *See* Bortz Report at 50. Figure 2 compares the rankings of Live Team Sports by the Bortz and Horowitz respondents.<sup>2</sup>

<sup>2</sup> Each survey also had other “preliminary” questions addressing distant signal program types. Horowitz asked two questions about the use of distant signal programming advertising and promotion, similar to the 2004-05 Bortz surveys. Bortz eliminated its advertising and

Footnote continued on next page



**Figure 2. Comparison of Bortz and Horowitz  
"Importance" Results for Live Team Sports, 2010-13**



Sources: Bortz Report at 50; Corrected Horowitz testimony at 19-20.

**B. The Principal Difference Between the Bortz and Horowitz Survey Results Is that Horowitz Accords the Program Suppliers and PTV Higher Valuation Shares than Bortz, at the Expense of JSC and CTV**

While there are similarities in the methodologies and results of the two surveys, the Horowitz surveys show a higher value share for the Program Suppliers and PTV categories than do the Bortz surveys; the higher Program Suppliers and PTV valuations come at the expense of JSC and CTV. Horowitz asked respondents to value three program types that Horowitz attributed to the Program Suppliers Agreed Category (Syndicated Series, Movies and “Other Sports”) while Bortz sought valuations for two program types attributed to Program Suppliers (Syndicated Series and Movies). Both surveys assigned only one program type each to the JSC, CTV, PTV, Devotional and Canadian Agreed Categories. As shown in Table 1 and Figure 3 below, the 2010-13 Horowitz respondents allocated the Program Suppliers category a total of

Footnote continued from previous page

promotional question for 2010-13 in favor of an expense question, based on the Judges’ comments in the 2004-05 proceeding. See Bortz Report at 39-40.

approximately eight percentage points more than Bortz respondents allocated that category.

PTV also received eight percentage points more in the 2010-13 Horowitz surveys while JSC and CTV each received eight percentage points less. Year-by-year comparisons are presented in Appendix Table A-2.

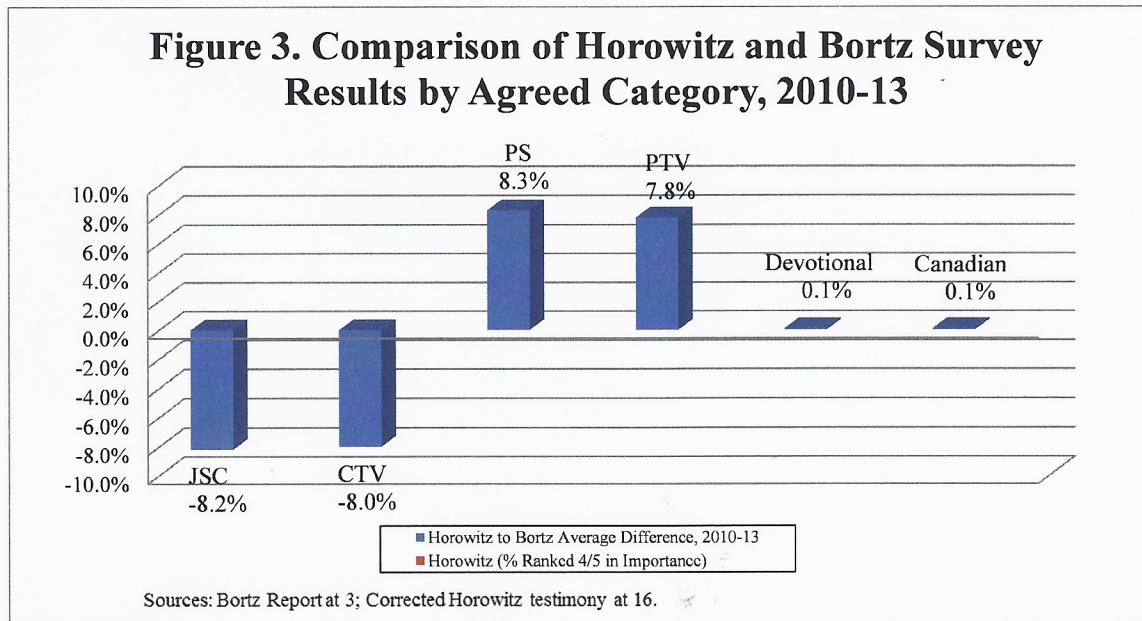
**Table 1. Horowitz and Bortz Weighted Survey Response Comparison, 2010-13**

<b>Program Type</b>	<b>Average: 2010-13</b>	
	<b>Horowitz</b>	<b>Bortz</b>
Live Team Sports	30.0%	38.2%
News	12.6%	20.6%
Syndicated	17.5%	14.7%
Movies	13.3%	16.3%
Devotional	4.7%	4.6%
PTV	12.9%	5.1%
Canadian	0.6%	0.5%
Other Sports	<u>8.5%</u>	<u>NA</u>
TOTAL	100.0%	100.0%

Columns may not add to total due to rounding.

Sources: Bortz Report at 3; Corrected Horowitz testimony at 16.





The different valuations accorded the Program Suppliers, PTV, JSC and CTV Agreed Categories are driven in significant measure by the different valuations of respondents whose systems retransmitted WGNA as their only commercial distant signal. There were two classes of such systems: (1) those that carried WGNA as their only distant signal (WGN-only Systems); and (2) those that carried WGNA as a distant signal only with one or more distant PTV signals (WGN/PTV-only Systems)<sup>3</sup>. The 307 respondents for these systems accounted for nearly one-half of the valuation accorded the commercial television categories, including Program Suppliers and JSC.

<sup>3</sup> This category also would include any systems that carried only WGN and Canadian signals, as well as those carrying only WGN, PTV and Canadian signals. However, Horowitz surveyed only one WGN/Canadian-only respondent (in 2010) and no respondents that were identified by Horowitz interviewers as WGN/PTV/Canadian-only. Thus, I have focused the discussion on WGN/PTV-only Systems.

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As reflected in Table 2 and Figure 4 below, the 2010-13 Horowitz respondents for WGN-only Systems accorded the Program Suppliers category a total of 54.7%, or 24.5 percentage points more than the 30.2% that the 2010-13 Bortz respondents from WGN-only Systems accorded Program Suppliers. The comparable numbers for JSC are 33.0% in the Horowitz surveys and 46.2% in the Bortz surveys, i.e., the Horowitz respondents accorded JSC (Live Team Sports) 13.2 percentage points less than did the Bortz respondents. A similar pattern can be found on WGN/PTV-only Systems. As reflected in Table 2 below, the Horowitz respondents for WGN/PTV-only Systems accorded Program Suppliers a total of 39.4%, or 9.5 percentage points more than the 29.9% that the Bortz respondents from WGN/PTV-only Systems accorded Program Suppliers. The comparable numbers for JSC are 24.3% in the Horowitz surveys and 34.4% in the Bortz surveys, or 10.1 percentage points less for JSC in Horowitz than in Bortz.<sup>4</sup>

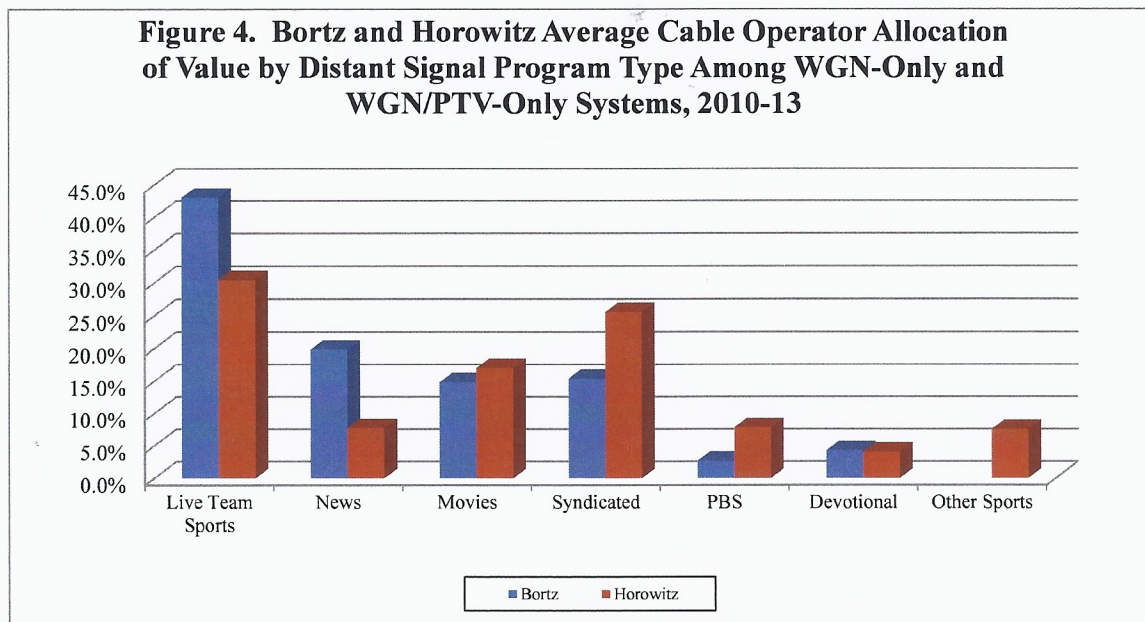
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<sup>4</sup> In addition to the JSC and Program Suppliers differences between the two surveys, the disparity for the CTV category also is notable since CTV programming on WGNA (like that of JSC) is 100% compensable. CTV values in the 2010-13 Bortz surveys were nearly 12 percentage points higher among WGN-only respondents, and more than 13 percentage points higher among WGN/PTV-only respondents.

**Table 2. Unweighted Survey Response Comparison for WGN-Only and WGN/PTV-Only Systems, 2010-13**

Program Type	WGN-Only Average: 2010-13		WGN/PTV-Only Average: 2010-13	
	Horowitz	Bortz	Horowitz	Bortz
Live Team Sports	33.0%	46.2%	24.3%	34.4%
News	7.9%	19.7%	7.2%	20.4%
Syndicated	28.3%	15.7%	19.4%	14.3%
Movies	18.2%	14.5%	14.0%	15.6%
Devotional	4.4%	3.9%	3.1%	5.2%
PTV	NA	NA	26.1%	10.0%
Other Sports	8.2%	NA	6.0%	NA
TOTAL	100.0%	100.0%	100.0%	100.0%

**Figure 4. Bortz and Horowitz Average Cable Operator Allocation of Value by Distant Signal Program Type Among WGN-Only and WGN/PTV-Only Systems, 2010-13**



As discussed further below, it is likely that the allocation differences between the Bortz and Horowitz surveys among WGN-only Systems were partially attributable to the fact that the Horowitz surveys did not adequately address WGNA programming compensability for these

systems. As shown below on Table 3, Bortz WGN-only System respondents in 2010-13 (who were asked about only the compensable WGNA programming that Bortz specifically identified) provided increased allocations to Live Team Sports and News, and lower allocations to Program Suppliers and Devotional programming, as compared with Bortz WGN-only System respondents in 2004-05 (who were not provided with any information about which programming was compensable).

**Table 3. Unweighted Survey Response Comparison for Bortz WGN-only Systems, 2004-05 and 2010-13**

Program Type	2004-05 Average*	2010-13 Average**	Change:
			2004-05 to 2010-13
Live Team Sports	39.6%	46.2%	6.6%
News	12.8%	19.6%	6.8%
Syndicated	18.9%	15.7%	-3.2%
Movies	20.7%	14.5%	-6.2%
Devotional	<u>8.0%</u>	<u>3.9%</u>	-4.1%
Total	100.0%	100.0%	

\*No information provided about WGNA programming compensability.

\*\*Respondents asked only about WGNA compensable programming.

Columns may not add to total due to rounding.

**C. The Higher Valuations Accorded Program Suppliers and PTV by the Horowitz Surveys Are Attributable to Design Flaws in the Horowitz Surveys**

The increased Program Suppliers' share in the 2010-13 Horowitz surveys is attributable to three principal differences in the design of the 2010-13 Horowitz and Bortz surveys:

1. The 2010-13 Horowitz surveys did not identify the specific programming on WGNA that was non-compensable in these proceedings; they simply instructed the respondents not to assign value to unidentified non-compensable programming. The 2010-13 Bortz surveys provided respondents whose systems carried WGNA as their only distant signal with a description of compensable

programming on WGNA, and asked them to assess the relative value of only that programming.

2. Horowitz asked cable system respondents to value a third type of Program Suppliers programming (and an eighth overall program type) that it called "Other Sports." However, nearly one-half of the respondents' systems (those that retransmitted WGNA as their only commercial distant signal) carried less than two hours each year of "Other Sports" during 2010-13.
3. Horowitz added both "such as" programming type descriptions and specific programming examples. In doing so, Horowitz gave descriptions and examples of Program Suppliers programming that the cable system respondents did not carry, was not compensable or was improperly included in the Program Suppliers category.

In short, the Horowitz modifications of the Bortz methodology are problematic (not "improvements" as Program Suppliers contend) and lead to valuation results that are biased primarily in favor of the Program Suppliers.<sup>5</sup>

#### **1. Failure to Account for Compensable Programming on WGNA**

As noted above, WGNA was the most widely carried distant signal during the years 2010-13. Form 3 cable systems made WGNA available to over 40 million cable subscribers or nearly 80 percent of all such subscribers who received distant signals. *See Bortz Report at 25.* According to Cable Data Corporation, WGNA also generated approximately 75 percent of the Section 111 fees paid by those systems that retransmitted distant signals during 2010-13, up from 63 percent in 2004-05. *See Bortz Report at 26-27.* Approximately 80 percent of Horowitz respondents and 86 percent of Bortz respondents carried WGNA during 2010-13 on a distant signal basis.<sup>6</sup>

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<sup>5</sup> Additional methodological problems contributed to PTV's higher share in the Horowitz surveys than in the Bortz surveys. These problems are discussed below in connection with the McLaughlin and Blackburn testimony.

<sup>6</sup> During 2010-13, the cable systems that retransmitted WGNA as a distant signal accounted for approximately 87.6% of the royalties paid by all cable systems that retransmitted distant signals.

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The majority of the programming on WGNA during 2010-13 is not compensable in these proceedings because it did not air simultaneously on WGNA (the national “superstation” feed) and WGN Chicago (the local broadcast station available off-air). *See* Bortz Report at 28. All of the non-compensable programming on WGNA belongs in the Program Suppliers and Devotional categories. Thus, as the Judges observed in the 2004-05 cable royalty distribution proceeding, the 2004-05 Bortz respondents who carried WGNA likely overvalued the programming in the Program Suppliers and Devotional categories, primarily at the expense of the Sports and CTV categories. *See* Bortz Report at 5; 2004-05 Distribution Order at 16-17.

The significance of this issue in the context of Program Suppliers is shown below on Table 4 (and later on Table 8 addressing the Devotional Claimants), which illustrates that more than 95% of Program Suppliers programming on WGNA in 2010-13 was not compensable.

Table 4. Compensability of Program Suppliers Programming on WGNA, 2010-13

	Total: 2004-05*	2010	2011	2012	2013	Total: 2010-13
WGNA Compensable Program Suppliers Programming Hours	355.9	554.8	276.0	126.8	241.6	1,199.2
WGNA Total Program Suppliers Programming Hours	1,640.0	7,164.8	7,254.5	7,305.6	7,285.1	29,009.9
Compensable % of Total Program Suppliers Hours	21.7%	7.7%	3.8%	1.7%	3.3%	4.1%

\*Reflects programming sample reviewed by CTV witness Richard V. Ducey.

Source: CTV 2004-05 Direct Case, Statement of Richard V. Ducey; and Bortz Media analysis of Gracenote/TMS programming data for WGNA and WGN Chicago.

The 2010-13 Bortz surveys addressed the WGNA program compensability issue in part, by providing respondents at WGN-only Systems with a written description of the compensable programs that WGNA actually televised in each year. *See* Bortz Report at 30 and Appendix C. In contrast, the Horowitz surveys merely instructed respondents not to assign any value to programs “substituted for WGN’s blacked out programming.” It is unlikely that even a knowledgeable cable industry executive would know which programs on WGNA had been substituted for other programs on a local TV station (WGN Chicago) – a station with which very

few of these executives would have any reason to be familiar.<sup>7</sup> This instruction served either to accomplish nothing or, if anything, to confuse respondents by making them uncertain as to which WGNA programming they should and should not value.

In short, the 2010-13 Horowitz surveys, like the 2004-05 Bortz surveys, overstate the relative value of Program Suppliers (and Devotional) programming because they did not properly address the WGNA non-compensability issue. The 2010-13 Bortz surveys also overstate the value of Program Suppliers and Devotional programming because they address the compensability issue only for respondents whose systems carried WGNA as their sole distant signal. However, given their specific identification of compensable WGNA programming for those respondents, the 2010-13 Bortz surveys provide a better relative value estimate than do the 2010-13 Horowitz surveys (and the 2004-05 Bortz surveys) for the programming on systems that carried only WGNA.

## **2. Improper Addition of the "Other Sports" Category**

The 2010-13 Bortz surveys (like prior Bortz surveys) asked each respondent to value up to seven types of programming on the distant signals that their systems carried; those program types were intended to correspond with the Agreed Categories in this proceeding and to be mutually exclusive. *See* Bortz Report at 16, 18, A7-A8 & Appendix E. The 2010-13 Horowitz surveys asked respondents to value the same program types. But they also added an eighth one, i.e., "Other Sports," which Horowitz included in the Program Suppliers total valuation.<sup>8</sup> I

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<sup>7</sup> Although important to whether programming is compensable for a *copyright owner*, the presence and identity of substituted programming on WGNA had no bearing on the amount of royalties a *cable system* had to pay to carry WGNA; thus, cable system operators had no reason to be interested in that issue. *See* Written Rebuttal Testimony of Allan Singer at 8.

<sup>8</sup> Horowitz says that "Other Sports" means sports other than the live professional and college team sports that fall within the JSC Agreed Category. *See* Corrected Horowitz testimony at 5.



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believe it was inappropriate to ask respondents to value a separate “Other Sports” category because most cable systems carried virtually no “Other Sports” on a compensable basis.

As Horowitz and other Program Suppliers witnesses suggest, there is a substantial amount of “Other Sports” programming (such as tennis and golf). But that programming is mainly non-compensable because it is aired by the national broadcast and cable networks and regional sports networks. The presence of “Other Sports” programming in the non-network distant signal marketplace at issue in this proceeding is, at best, modest and does not merit consideration as a third program category for Program Suppliers. With the exception of Fox-distributed programming,<sup>9</sup> “Other Sports” programs are generally syndicated programs (properly included in the Bortz Syndicated program type) or programs within the CTV category and cannot reasonably be confused with the major professional and collegiate team sports that form the core of the JSC category.

Neither Horowitz nor any of the other Program Suppliers witnesses provide a justification for seeking a separate valuation of “Other Sports” programming as opposed to the several other types of programming within the Program Suppliers (or CTV) category. *See* Direct Testimony of Jane V. Saunders (Saunders Testimony) at 5-6 (identifying the various types of programming within the Program Suppliers Agreed Category). Indeed, according to the data underlying the testimony of Program Suppliers witness Dr. Gray, only 1.3% of the “volume” of programming in the Program Suppliers category consists of “sporting events” (there is no “Other Sports”

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<sup>9</sup> Based on signal carriage data provided by CDC, less than 21% of the systems responding to the 2010-13 Horowitz surveys carried Fox stations on a distant signal basis.



category in the Gray data). In contrast, approximately 20% of the volume of programming in the Program Suppliers category consists of “paid programming” (infomercials).<sup>10</sup>

Furthermore, nearly half of the 691 “respondents”<sup>11</sup> who Horowitz asked to value “Other Sports” (308 respondents) carried WGNA as their only commercial distant signal; and WGNA televised less than two hours per year of compensable “Other Sports” programming during the period 2010-13. In 2010 WGNA aired two compensable hours of taped pro-wrestling reruns (*WWE Superstars*). In 2011-13 WGNA aired a single thirty-minute (2011) or one-hour (2012-13) horse race (*The Arlington Million*). Such a minuscule amount of programming did not warrant a separate category in the Horowitz surveys. Asking respondents to value such a category misleadingly implied that there was a material amount of “Other Sports” programming that their systems imported when in fact there was no such programming other than these two or fewer hours each year on WGNA.

Horowitz compounded the problem by telling respondents for WGN-only Systems that “examples” of the programming “included” in “Other Sports” were “wrestling” (2010) and “horse racing” (2011-13). There were no compensable “Other Sports” on WGNA during 2010-13 other than the two hours of *WWE Superstars* in 2010, thirty minutes of *Arlington Million* in 2011 and one hour of *Arlington Million* in 2012 and 2013. The 2010 reference to wrestling as an “example” was particularly problematic because WGNA did televise 138 episodes of *WWE Superstars* in 2010 on a non-compensable basis. Moreover, Horowitz told respondents for

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<sup>10</sup> See William E. Wecker Associates, Inc. Analysis of Written Direct Statement of Jeffrey S. Gray, Ph.D, at 9 n.26.

<sup>11</sup> “Respondents” as used herein (unless otherwise specified) refers to the number of systems for which a response was provided. Because individuals responded on behalf of multiple systems and in multiple years, the number of unique individuals responding to the Horowitz surveys was much smaller. See Appendix Table A-3.

WGN/PTV-only Systems that “examples” of “Other Sports” “include NASCAR auto races, professional wrestling, and figure skating broadcasts.” But these systems carried no NASCAR auto races or figure skating broadcasts during 2010-13; nor did they carry any compensable wrestling other than the two hours of *WWE Superstars* in 2010.

While several Horowitz respondents did not accord any value to the “Other Sports” category, there were 197 respondents from the 308 WGN-only and WGN/PTV-only Systems in 2010-13 that did do so. Their average valuation for “Other Sports” was 12.1%; some Horowitz respondents accorded “Other Sports” on WGNA a valuation as high as 30%, without being informed of the “Other Sports” that WGNA actually televised. In my opinion, all of the “Other Sports” valuations from WGN-only and WGN/PTV-only respondents should be discarded. There is no proper basis for seeking valuation of a separate “category” of programming when that “category” accounted for only two hours or less per year of the compensable distant signal programming retransmitted by these respondents’ cable systems.

### **3. Misleading Examples and Descriptions of Program Suppliers Programming**

Unlike the 2010-13 and all prior Bortz surveys, the 2010-13 Horowitz surveys provided examples and/or “such as” descriptions of programming included in some (but not all) of the program types for which they sought respondent valuations. These examples and descriptions varied by year and the type of system.<sup>12</sup> The use of program examples and descriptions injected

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<sup>12</sup> Horowitz separated cable systems into one of five groups:

1. WGN-only (based on data provided by CDC, there were 215 responding systems that carried WGNA as their only distant signal);
2. Network (responding systems that carried stations affiliated with the ABC, CBS or NBC networks as their only distant signals or in combination with other types of distant signals); and Non-Network systems (responding systems that carried

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fundamental flaws into the Horowitz surveys, especially since the examples and descriptions were read to respondents a total of four times.<sup>13</sup>

*a. WGN-only Systems*

As noted above, nearly 30 percent of the systems responding to the 2010-13 Horowitz surveys carried WGNA as their only distant signal. The program examples and descriptions that Horowitz provided to the WGN-only respondents for the "Other Sports," Syndicated Series and Movies categories (the three categories Horowitz attributed to Program Suppliers) were

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non-network stations (i.e., those not affiliated with ABC, CBS or NBC) as their only commercial distant signals). The Non-Network group included systems that carried WGNA as their only commercial distant signal; based on data provided by CDC, there were 92 responding systems that carried only WGNA and one or more distant PTV signals, as well as one responding system that carried only WGNA and a distant Canadian signal. Excluding the WGNA/PTV or Canadian-only respondents, CDC data indicate these two groups included 383 responding systems;

3. PTV-only (40 systems that carried non-commercial educational stations (PTV) as their only distant signals); and
4. Canadian-only (one system that carried Canadian stations as its only distant signals (in one year, 2011)). Based on CDC data, there was also one respondent that carried and was asked to respond about only PTV and Canadian distant signals.

<sup>13</sup> Program Suppliers have argued during each of the cable royalty distribution proceedings conducted during the past three decades that the Bortz surveys should include examples for each program type. In the 2004-05 proceeding, the Program Suppliers submitted a cable subscriber constant sum survey that used program examples. JSC and other parties criticized the surveys for that (and other) reasons. *See Settling Parties' Proposed Findings of Fact, In Re Distribution of the 2004 and 2005 Cable Royalty Funds*, ¶¶ 502-515; Rebuttal Testimony of Dr. Gregory M. Duncan, *In Re Distribution of the 2004 and 2005 Cable Royalty Funds*, December 11, 2009, at 7-8; Rebuttal Testimony of Jeffery S. Berman, *In Re Distribution of the 2004 and 2005 Cable Royalty Funds*, December 11, 2009, at 5-8. It has been, and remains, the view of Bortz Media that program examples should not be used in the Bortz or comparable surveys. *See Bortz Report at A-7 to A-8*. The use of such examples needlessly complicates the survey questions and, if not done properly, can mislead respondents; it also is unnecessary given that the respondents are knowledgeable cable industry programming professionals. If program examples are used, it is essential to ensure that such examples accurately reflect the compensable distant signal programming actually carried by each respondent. As discussed below, the 2010-13 Horowitz surveys failed to do so.

misleading in several respects. See Appendix B, which provides a list of the programs that Program Suppliers witness Dr. Jeffrey Gray identified as compensable during 2010-13.

*i. “Other Sports.”* The Horowitz interviewers always asked the respondents to value “Live Team Sports” first, followed by the “Other Sports” category. They provided different program examples in 2010, on the one hand, and 2011-13 on the other hand, for WGN-only Systems:

2010: “Other sports programming broadcast on WGN. Examples include *WWE Superstars*.” (See Bates Nos. 003908-003915)

2011-13: “Other sports programming broadcast on WGN. Examples include Horse Racing.” (See Bates Nos. 003925-003931; 003982-003989; and 004002-004009)

As discussed above, it was improper for Horowitz to include an “Other Sports” category for WGN-only Systems because those systems retransmitted less than two hours per year of compensable “Other Sports” programming. Even if an “Other Sports” category were appropriate for WGN-only Systems, referring to Horse Racing as an “example” of “Other Sports” in 2011-13 was misleading. Doing so suggested that there were multiple telecasts of various “Other Sports” on WGNA in these years, when in fact the only compensable “Other Sports” telecast on WGNA in each of those years was a single horse race per year: the *Arlington Million*. And referencing “Horse Racing” suggested that this was a regular offering on WGNA, when in fact WGNA televised only one race per year. Moreover, the *Arlington Million* is not compensable in the Program Suppliers category; it was produced for, and aired only on, WGNA, thereby placing it in the CTV category. See Notice of Participant Groups, Commencement of Voluntary Negotiation Period (Allocation), and Scheduling Order, No. 14-CRB-0010-CD (2010-13) (Nov. 25, 2015) at Appendix A (setting forth Agreed Categories of Claimants).

Referring to *WWE Superstars* as an “example” also was misleading because WGNA televised no compensable “Other Sports” in 2010 aside from two one-hour airings of *WWE Superstars*. In addition, WGNA televised *WWE Superstars* 138 times in 2010 on a *non-compensable basis*, i.e., the program aired on WGNA but not on WGN Chicago. It is unlikely that any of the WGN-only respondents knew that only two of the 140 telecasts of *WWE Superstars* were compensable; therefore, these respondents almost certainly gave their valuation of “Other Sports” for all 140 telecasts (in addition to any other implied value that they attributed to the category because of the misleading use of the term “example”) rather than only two telecasts. Moreover, like the *Arlington Million* and unlike other WWE programming, *WWE Superstars* was produced for, and aired domestically, only on WGNA.

*ii. Syndicated Series.* As shown on Table 2 above, Horowitz WGN-only respondents allocated an average of 28.2% to Syndicated Series – nearly double the 15.7% average allocation among Bortz WGN-only respondents. In my opinion, they did so because of the misleading program examples supplied by the Horowitz surveys. The Horowitz description of Syndicated Series for WGN-only Systems was as follows:

2010: “Syndicated series such as sitcoms, dramas, children’s shows, talk shows, reality shows, game shows, and other series broadcast on WGN. Examples include programs such as *Curb Your Enthusiasm*, *Legend of the Seeker*, and *Smash Cuts*.” (See Bates Nos. 003908-003915)

2011: “Syndicated series such as sitcoms, dramas, children’s shows, talk shows, reality shows, game shows, and other series broadcast on WGN. Examples include programs such as *Cheers*, *30 Rock*, and *Just Shoot Me*.” (See Bates Nos. 003925-003931)

2012: “Syndicated series such as sitcoms, dramas, children’s shows, talk shows, reality shows, game shows, and other series broadcast on WGN. Examples include programs such as *30 Rock*, *Adelante Chicago*, *People to People*, and *MDA Show of Strength*.” (See Bates Nos. 003982-003989)

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2013: "Syndicated series such as sitcoms, dramas, children's shows, talk shows, reality shows, game shows, and other series broadcast on WGN. Examples include programs such as *30 Rock*, *Adelante Chicago*, *Everybody Loves Raymond*, and *People to People*." (See Bates Nos. 004002-004009)

Thus, Horowitz provided a list of six types of programming included in Syndicated Series, and supplemented that list with three to four examples of specific programs. Referring to six types of syndicated programming in the "such as" portion of the question was misleading since four of the six types listed did not appear as compensable syndicated program types on WGNA in any of the four survey years, i.e., WGNA televised no compensable Game Shows, Reality Shows, Talk Shows or syndicated Children's Shows in any of the four years. Moreover, paid programming (i.e., infomercials), which accounted for both the largest number of compensable syndicated programs and syndicated programming hours on WGNA from 2010-13, was not mentioned as a syndicated program type. Furthermore, as summarized below in Table 5 and in the discussion that follows, there were several problems with the selected examples:

Table 5. Horowitz WGN Only Examples, Syndicated Series

Program Title	Applicable Years	Total WGNA	Compensable WGNA	Percent Compensable	Comments
<i>Everybody Loves Raymond</i>	2013	None	None	NA	Not a WGNA program
<i>Adelante Chicago</i>	2012-13	NA	NA	NA	Not a syndicated program
<i>People to People</i>	2012-13	NA	NA	NA	Not a syndicated program
<i>30 Rock</i>	2011-13	1,884	459	24%	Mostly non-compensable
<i>Cheers</i>	2011	500	1	0%	Almost entirely non-compensable
<i>Just Shoot Me</i>	2011	3	3	100%	Aired on only one day that year
<i>Curb Your Enthusiasm</i>	2010	193	0	0%	Non-compensable
<i>Smash Cuts</i>	2010	74	0	0%	Non-compensable
<i>Legend of the Seeker</i>	2010	85	85	100%	Not an "example;" only compensable program in category

- ✓ In 2013, the comedy series *Everybody Loves Raymond* was used as an example. This program did not air on WGNA; it was shown only on WGN Chicago. Program Suppliers' own expert, Dr. Gray, did not identify any WGNA telecasts of *Everybody Loves Raymond* in his viewing study. See Appendix B.

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- ✓ In both 2013 and 2012, the local public affairs programs *Adelante Chicago* and *People to People* were two of Horowitz's four syndicated programming examples. These programs were not syndicated shows, but rather were locally produced public affairs programs that do not come within the Program Suppliers category. Dr. Gray categorized both *Adelante Chicago* and *People to People* as CTV titles in his viewing study. See Appendix B.
- ✓ The syndicated series *30 Rock* was used as an example in the 2011-13 surveys. *30 Rock* did air on WGNA in all three years. However, 76 percent of the over 1,800 *30 Rock* airings on WGNA in 2011-13 were not compensable and Horowitz did not give any indication of this fact to its respondents. In addition, it was misleading to refer to *30 Rock* as an "example" in either 2012 or 2013 since this was the only compensable syndicated series on WGNA in both years. Referring to the series as an example suggests to respondents that there are additional series that they should be considering in this category when in fact the remainder of the category consisted only of paid programming (infomercials) and two "one-time" specials shown in 2012.
- ✓ In 2011, the syndicated series *Cheers* was used as an example. While a total of 500 airings of this program were shown on WGNA in 2011, only one of these airings was compensable.
- ✓ Also in 2011, Horowitz used the comedy series *Just Shoot Me* as an example. Only three compensable airings of this program occurred on WGNA in 2011, and all three were shown on the same day.
- ✓ In 2010, *Curb Your Enthusiasm* and *Smash Cuts* were two of the three examples used by Horowitz. WGNA televised *Curb Your Enthusiasm* 193 times in 2010 and *Smash Cuts* 74 times that year. None of these telecasts was compensable. Moreover, referring to the third program listed (*Legend of the Seeker*) as an example was misleading since this was the only compensable syndicated series that aired on WGNA in 2010.

*iii. Movies.* Table 2 above shows that Horowitz WGN-only respondents allocated an average of 18.1% to Movies, compared with a 14.5% average allocation from Bortz WGN-only respondents. In my opinion, the different allocations are attributable to the misleading examples of Movies that the Horowitz surveys provided. The Horowitz description of this program type for WGN-only Systems was as follows:

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2010: "Movies such as feature films, Movies of the Week, and specials broadcast on WGN. Examples include movies such as *No Country for Old Men*, *The Matrix*, *Bridget Jones's Diary*, and *The Sixth Sense*." (See Bates Nos. 003908-003915)

2011: "Movies such as feature films, Movies of the Week, and specials broadcast on WGN. Examples include movies such as *Kingpin*, *The Green Mile*, *Bridget Jones's Diary*, and *102 Dalmatians*." (See Bates Nos. 003925-003931)

2012: "Movies such as feature films, Movies of the Week, and specials broadcast on WGN. Examples include movies such as *Heist*, *A Walk to Remember*, *The Lord of the Rings: The Fellowship of the Ring*, and *A Walk in the Clouds*." (See Bates Nos. 003982-003989)

2013: "Movies such as feature films, Movies of the Week, and specials broadcast on WGN. Examples include movies such as *Gladiator*, *The Lord of the Rings: The Return of the King*, and *Home Alone 2: Lost in New York*." (See Bates Nos. 004002-004009)

Despite the apparently self-explanatory nature of the Movies program type, Horowitz provided three "such as" descriptions of "types" of movies, including "feature films," "Movies of the Week," and "specials." In addition, depending on the year, between three and four specific movie titles were provided as examples. Beyond this descriptive "overkill," problems with the WGN-only question design for this program type are summarized in Table 6 below and the subsequent discussion:

Table 6. Horowitz WGN Only Examples, Movies

Year	Number of Movie Examples	Total WGNA Movies	Compensable WGNA Movies	Percent Compensable	Comments
2010	4	286	56	20%	Compensable movies aired in overnight hours
2011	4	227	24	11%	Compensable movies aired in overnight hours
2012	4	260	4	2%	Movie "examples" were the only compensable movies on WGNA
2013	4	209	4	2%	Movie "examples" provided did not air on WGNA

- ✓ In 2010, WGNA televised 286 movies, only 20% of which were compensable; in 2011, WGNA televised 227 movies, less than 11% of



which were compensable. No information was provided in the Horowitz surveys to indicate that the vast majority of all movies shown on WGNA in the years 2010-11 were non-compensable, or that nearly all of the compensable movies shown aired during overnight hours (i.e., between 1:00 AM and 5:00 AM).

- ✓ In 2012, there were only four compensable movies on WGNA for the entire year. These four movies were used as the Horowitz examples. This was misleading since these were not “examples” but rather constituted the station’s entire compensable movie lineup for that year. This is especially problematic considering that there were 256 non-compensable movie airings on WGNA in 2012.
- ✓ In 2013, there were also only four compensable movies aired on WGNA for the entire year – and the Horowitz examples were even more problematic. Specifically, the three examples used by Horowitz were not compensable, and in fact did not appear on WGNA. Further, the examples were misleading in that they consisted of two Academy Award Best Picture winners (*Lord of the Rings: Return of the King* and *Gladiator*) and the second installment in a very popular movie franchise (*Home Alone 2: Lost in New York*). By comparison, the compensable movies on WGNA in 2013 were *Brother Bear 2*, *Dan in Real Life*, *Romeo Must Die*, and *Hannah Montana and Miley Cyrus: Best of Both Worlds Concert*. Once again, the problem with the Horowitz movie examples was exacerbated by the fact that there were 205 non-compensable movie airings on WGNA in 2013.

**b. WGN/PTV-only Systems**

As noted above, 92 systems or approximately 13 percent of those responding to the 2010-13 Horowitz surveys carried WGNA as their only commercial distant signal along with one or more PTV signals. The program descriptions and examples that were employed for these WGN/PTV-only Systems differed in significant respects from those that were used in the WGN-only surveys – even though WGNA was the only signal for which the program types (other than PTV) had any applicability.<sup>14</sup> The program examples and descriptions that Horowitz provided to

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<sup>14</sup> Note that because public television and Canadian signals each had a dedicated category in the Horowitz survey, their presence is not relevant for any of the other programming categories.

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the WGN/PTV-only respondents for “Other Sports” and Syndicated Series were misleading in several respects.

*i. “Other Sports.”* As noted above, the Horowitz surveys had a “Live Team Sports” as well as an “Other Sports” program type. “Live Team Sports” was always read first to respondents. Respondents for WGN/PTV-only Systems were then read the following “Other Sports” description:

“Other sports programming broadcast on [WGN]. Examples include NASCAR auto races, professional wrestling, and figure skating broadcasts.” (See Bates Nos. 003882-003891; 003932-003940; 003972-003981; and 004010-004018)

For the years 2012 and 2013, none of the programs used as examples were televised by WGNA. In 2011, only professional wrestling was televised by WGNA but it was not compensable; and in 2010 only professional wrestling was televised by WGNA and only two of the telecasts were compensable. See page 17 above. The use of these program examples was misleading in at least three additional respects. First, some respondents may have mistakenly believed that, because these programs were used as examples, they must have been carried and compensable on WGNA. Second, some respondents may have been aware that these programs were not televised by and/or not compensable on WGNA, but may have become confused about whether they should still include the example programming when allocating value. And finally, even if respondents were aware that these particular programs were not televised by and/or compensable on WGNA, they might have incorrectly assumed that there must have been a significant amount of additional “Other Sports” programming on WGNA because a distinct

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PTV and Canadian stations were not read to respondents when respondents were asked about the other categories.

category and three specific examples were given for this programming type. In essence, the only way for a respondent to accurately respond for "Other Sports" (especially in 2012 and 2013) was for them to deduce based on their knowledge and experience that the inclusion of the program type was the equivalent of a "trick question."

*ii. Syndicated Series.* Horowitz WGN/PTV-only respondents allocated an average of 19.4% to this program type, compared with 14.3% among Bortz WGN/PTV-only respondents. In my opinion, this difference was attributable to the misleading examples of Syndicated Series provided by the Horowitz interviewers. The Horowitz description of Syndicated Series for WGN/PTV-only Systems was as follows:

2010-11: "Syndicated series such as sitcoms, dramas, children's shows, talk shows, reality shows, game shows, and other series broadcast on [WGN]. Examples include programs such as *Everybody Loves Raymond*, *Seinfeld*, *American Idol*, *Jeopardy*, and *The Oprah Winfrey Show*." (See Bates Nos. 003882-003891 and 003932-003940)

2012-13: "Syndicated series such as sitcoms, dramas, children's shows, talk shows, reality shows, game shows, and other series broadcast on [WGN]. Examples include programs such as *Everybody Loves Raymond*, *Seinfeld*, *American Idol*, *Jeopardy*, and *The Dr. Oz Show*." (See Bates Nos. 003972-003981 and 004010-004018)

None of the programs listed as examples appeared on WGNA in any of the years from 2010-13. Moreover, as mentioned previously, four of the six syndicated program types listed did not appear as compensable programs on WGNA in any of the four survey years, i.e., WGNA televised no compensable Game Shows, Reality Shows, Talk Shows or syndicated Children's Shows in any of the four years.

*c. Other Cable Systems*

The program examples that the Horowitz surveys provided for the remaining 383 respondents were also problematic. The Horowitz interviewers told each of these respondents

that examples of “Other Sports” included “NASCAR auto races, figure skating and wrestling.” However, at least one-third of these respondents’ systems carried none of this programming on a compensable basis in 2011-13.

#### IV. Testimony of Dr. Erkan Erdem

##### A. Dr. Erdem’s Analysis of the WGNA Compensable Programming Issue Is Predicated upon a Misunderstanding of the Underlying Data

Dr. Erdem, on behalf of the Devotional Claimants, acknowledges that the “results of the Bortz survey allow us to approximate the behavior of profit-maximizing CSOs as they consider the mix of programming they can possibly offer to their potential or actual subscribers.” *See* March 9, 2017 Amended Testimony of Erkan Erdem (Erdem amended testimony) at 5. Dr. Erdem also suggests that the Devotional Claimants should not receive less than the share reflected for the Devotionals in the 2010-13 Bortz surveys (*id.* at 12) – even though the Judges concluded that the Devotionals should receive less than their share in the 2004-05 surveys based on the compensability of programming on WGNA. *See* page 14 above.

Compensability of programming on WGNA is a salient issue for the Devotional Claimants because most of the religious programming televised by WGNA in 2010-13 was not aired simultaneously on WGN Chicago; thus, most of the Devotional programming on WGNA (like most of the Program Suppliers programming on WGNA) is not compensable. *See* Table 7 below.

**Table 7. Compensability of Devotional Programming on WGNA, 2010-13**

	Total:					Total:
	2004-05	2010	2011	2012	2013	2010-13
WGNA Compensable Devotional Programming Hours	12.0	65.0	53.0	31.5	36.0	185.5
WGNA Total Devotional Programming Hours	120.5	633.5	536.5	449.5	505.5	2125.0
Compensable % of Total Devotional Hours	10.0%	10.3%	9.9%	7.0%	7.1%	8.7%

\*Reflects programming sample reviewed by CTV witness Richard V. Ducey.

Source: CTV 2004-05 Direct Case, Statement of Richard V. Ducey; and Bortz Media analysis of Gracenote/TMS programming data for WGNA and WGN Chicago.

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In the 2004-05 proceeding, the Judges found that the Bortz survey results should be regarded as a “ceiling” on the Devotional share “because of the presence of devotional programming on WGN that is also non-compensable.” *See* 2004-05 Distribution Order at 16. As explained in the Bortz Report, while the approach used in the 2010-13 Bortz surveys mitigates the WGN compensability issue, it does not fully account for the impact of this issue and the Bortz results for the Devotional category (and Program Suppliers) should still be regarded as a “ceiling.”<sup>15</sup> *See* Bortz Report at 47-49; 2004-05 Distribution Order at 16.

Dr. Erdem assesses the compensability of programming on WGNA using his own definition of compensability (i.e., programming with exactly the same start time, end time and duration as reported in the Gracenote data he reviewed). Under this approach, he incorrectly concludes that a portion of JSC programming on WGNA was not compensable in 2010-13.<sup>16</sup> That conclusion reflects a misunderstanding of the Gracenote programming schedule data upon which his analysis relies – particularly as it applies to live programming (such as JSC telecasts) as well as programming scheduled to air in time periods immediately following live telecasts. Gracenote data in some cases represented the “pre-air” schedule provided to Gracenote by the station (which might anticipate that, for example, a Major League Baseball telecast will last 180 minutes or three hours); and in other instances the Gracenote data consisted of the “as-run” or

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<sup>15</sup> As shown previously in Table 3, the unweighted average Bortz survey allocation among WGN-only Systems was 8.0% percent for Devotionals in 2004-05 (when respondents were not provided with information about compensability), but declined to about half that level (3.9%) in 2010-13 when respondents considered only WGNA compensable programming.

<sup>16</sup> Dr. Erdem acknowledged that, “using the JS’ Claimants definition of compensable” 100% of JSC programming is compensable. Erdem amended testimony at 9 n.19. Under the “JSC definition,” a non-network program is compensable if it is retransmitted by a cable system simultaneously with the airing of that program by a broadcast station. As Dr. Erdem also acknowledged, Section 111 of the Copyright Act defines compensable programming as programming which is transmitted “simultaneously with the primary transmission.” Erdem amended testimony at 4.

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“post-air” schedule (which would indicate the actual length of the game telecast rather than an estimate, and could affect whether the programming scheduled to air afterward was actually shown or in some cases may have been joined in progress). Moreover, the Gracenote data for WGNA sometimes reported the initial five to ten minutes of a game telecast as a distinct “pre-game show” (e.g., *Lead-Off Man* for the Chicago Cubs) and/or the last few minutes of the broadcast as a distinct “post-game show” (e.g., *10<sup>th</sup> Inning* for the Cubs), while the WGN Chicago Gracenote schedule may have shown the telecast of the same MLB game as occupying the entire time block.

For purposes of determining compensability, this may complicate matters – but only with respect to *how many minutes* of compensable programming should be assigned to a particular game telecast – *not to whether the game telecast is compensable*. JSC considers only the overlapping game telecast itself as compensable JSC programming, and Bortz has allocated pre-game and post-game minutes identified in either the WGNA or WGN Chicago data set to CTV. Dr. Erdem’s decision to consider entire telecasts where this situation exists to be non-compensable is incorrect.

Dr. Erdem uses this incorrect conclusion about compensability as his sole basis for stating that the impact of non-compensable WGNA programming in the Bortz survey should be extended to JSC and CTV as well as Program Suppliers and the Devotional Claimants. As the Judges concluded in the 2004-05 proceeding, the respondents’ consideration of non-compensable programming on WGNA means that the Bortz survey results (for 2010-13 as in 2004-05) should be regarded as a ceiling for Program Suppliers and the Devotional Claimants (whose content on WGNA was mostly non-compensable) – and a floor for JSC and CTV (whose content on WGNA was 100 percent compensable).

**B. Dr. Erdem Misunderstands the Nature and Effect of Changes that the Horowitz Surveys Made to the Bortz Methodology**

Dr. Erdem asserts that the repeated use of the terms “distant signals” and “distant broadcast stations” in the Horowitz surveys is an improvement over the language used in the Bortz surveys to describe the signals addressed in the survey. Dr. Erdem is wrong. The Bortz surveys intentionally seek to mask the fact that they relate to copyright royalties in order to avoid any potential concern by respondents that their answers could affect royalty rates. As such, the use of terms such as “distant signals,” which some respondents may associate with copyright matters, is problematic – and certainly not an “improvement.”

Similarly, Dr. Erdem’s assertion that the Horowitz instruction to not assign value to programs that were substituted for WGN Chicago’s blacked out programming “might be a slight enhancement” reflects a lack of understanding of the marketplace. As discussed above, unless a respondent resides in or near Chicago and could receive the WGN local signal off-air, it is improbable that he or she (despite their expertise in programming matters generally) would be familiar with the specific distinctions between the programming on WGNA – which they have direct access to – and WGN Chicago, which they do not have ready access to and would have little reason to have ever evaluated. Thus, including this instruction in the questionnaire:

(1) provided no additional information of value to the respondent; (2) provided even further evidence to certain respondents that the survey concerned copyright royalty matters; and (3) may have caused confusion or frustration among some respondents if these respondents felt they should be excluding some WGNA programming from consideration but did not know which programming to exclude.

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Finally, Dr. Erdem correctly identifies that there were problems with the examples provided in the Horowitz survey, and that these problems may have biased the Horowitz results. But his analysis of this issue is cursory and understates the likely impact of these problems. *See* pages 18-28 above. He states that respondents were provided with examples for each of the Program Suppliers, JSC and Devotional Claimants Agreed Categories on WGNA that were either non-compensable or not broadcast on WGNA, and therefore concludes that all three Agreed Categories were “subject to the same imperfect approach.” *See* Erdem amended testimony at 12. This is incorrect. While the Horowitz examples for JSC programming on WGNA were compensable and were in fact broadcast on WGNA, the Devotional examples overstated the presence and nature of compensable programming on WGNA in this Agreed Category and likely biased the Horowitz responses in favor of the Devotional Claimants – as was the case with the Program Suppliers examples. *See* pages 18-28 above. Specifically, the Devotional examples used in the Horowitz WGN-only questionnaires were misleading because they included programs that aired on WGNA but were not compensable (*Singsation!* in 2011 and *Creflo Dollar* in 2013) or only partially compensable (*Victory in Grace* in 2012). Similarly, among Non-Network systems that carried WGNA as their only U.S. commercial distant signal, examples in all four years consisted of programs including *Joel Osteen Ministry* (never carried on WGNA); *Kenneth Copeland Ministries* (carried by WGNA in 2010 and 2011 on a non-compensable basis); and *Creflo Dollar* (carried by WGNA on a non-compensable basis in all four years).



**V. Testimony of Linda McLaughlin and Dr. David Blackburn**

**A. The McLaughlin/Blackburn Reliance on Changes in Distant Subscriber Instances Is Misplaced Because Distant Subscriber Instances Are a Measure of Program Time And Not Program Value**

In their initial testimony, Ms. McLaughlin and Dr. Blackburn concluded that PTV's share of the 2010-13 royalties should be 32% higher than its share of the 2004-05 royalties because PTV's share of "distant subscriber instances" had increased during this period from 12.1% to 15.9%. *See* December 21, 2016 Testimony of Linda McLaughlin and David Blackburn (McLaughlin/Blackburn testimony) at 10. A "distant subscriber instance" represents one distant signal being received by one cable system subscriber, without regard to how much the cable system paid to deliver (or the cable subscriber paid to receive) that signal.<sup>17</sup> Based upon that change in distant subscriber instances, PTV requested an award of no less than 9.9% of the 2010-13 Basic Fund royalties (excluding the share awarded to the Music Claimants), a 32% increase over PTV's 2004-05 average award of 7.55% (excluding Music). *See* December 22, 2016 Written Direct Statement of Public Television Introductory Memorandum (PTV WDS) at 4. PTV did not request any 3.75 royalties because it is not eligible to share in such royalties. *See* PTV WDS at 4.

In the 1998-99 cable royalty distribution proceeding, a Copyright Arbitration Royalty Panel ("CARP") determined that distant subscriber instances are a measure of relative programming time and not relative programming value. Thus, the CARP refused to increase PTV's share of the cable royalty fund over its 1990-92 level notwithstanding that PTV showed a

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<sup>17</sup> As shown in Appendix Table A-1, from 2010-13 only 15-17% of cable subscribers that had access to distant signals received one or more distant PTV signals. Further, 88% of the systems that carried distant PTV signals also carried at least one commercial distant signal.

doubling of its share of distant subscriber instances between 1990-92 and 1998-99.<sup>18</sup> Consistent with that precedent and my experience that program “volume” does not equate to program value, I do not believe that PTV’s 2010-13 share should be tied to increases in distant subscriber instances, as McLaughlin/Blackburn have suggested.<sup>19</sup>

**B. The McLaughlin/Blackburn Adjustments of the 2010-13 Bortz Results Do Not Support the Award Requested by PTV**

The 2010-13 Bortz surveys, like prior Bortz surveys, did not seek responses from sample systems that carried PTV signals as their only distant signals.<sup>20</sup> As explained in the Bortz Report at 14 and A-10 to A-11, our view has been and remains that asking respondents to allocate “relative value” to a single category of programming is not a valid application of the constant sum survey methodology; and it has the potential to create confusion among respondents. Nevertheless, we have recognized that some adjustment to the specific point estimates in the

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<sup>18</sup> See October 21, 2003 Report of the Copyright Arbitration Royalty Panel to the Librarian of Congress (“1998-99 CARP Report”) at 56-57 (finding that “[b]oth subscriber instances studies offered by [PTV’s expert] Dr. Johnson suffer from the same fundamental infirmity – they attempt to equate programming *volume* with programming *value*”) (emphasis in original); *id.* at 57 (“We view Dr. Johnson’s change in subscriber instances theory as relatively unuseful because it is based on a measure of time, not value. . . . Changes in measures of relative time do not prove changes in relative value”). The 1998-99 CARP also attributed weight to PTV’s share of fees generated. *Id.* at 60-65. PTV’s share of 2010-13 fees generated amounted to 4.6%. Bortz Report at 27. PTV’s 2010-13 average Bortz share of 5.1% is slightly higher than PTV’s share of fees generated, and is also higher than PTV’s average 2004-05 Bortz share of 3.6%.

<sup>19</sup> It should be noted that WGNA’s share of distant subscriber instances is substantially higher in 2010-13 (at 59% of total distant subscriber instances) than it was in 2004-05 (50%). In absolute terms, the average yearly number of WGNA distant subscriber instances increased by more than six million over this period. This dwarfs the absolute increase of just under 2.6 million distant subscriber instances for PTV distant signals.

<sup>20</sup> The average number of Form 3 PTV-only Systems declined from 63.5 in 2010 to 42.0 in 2013. Over the four year period, this represented about five percent of the Form 3 systems that carried at least one distant signal. The initial Bortz survey samples for each year included an average of 13 PTV-only Systems, while the Horowitz samples also included an average of 13. As discussed further below, PTV-only Systems were over-represented among Horowitz survey respondents, due largely to very high response rates among the sampled PTV-only Systems.

2010-13 Bortz surveys is appropriate to account for the exclusion of systems that carried PTV signals (or Canadian signals) as their only distant signals. *See* Bortz Report at 7-8.

Ms. McLaughlin and Dr. Blackburn have adjusted the 2010-13 Bortz survey results to account for the fact that the Bortz surveys do not include valuations from PTV-only (and Canadian-only) Systems. Their adjustment follows the approach that Ms. McLaughlin offered in prior cable royalty distribution proceedings and that the Judges accepted in the 2004-05 proceeding. *See* 2004-05 Distribution Order at 27. It assumes that certain of the PTV-only Systems in the Bortz sample would have responded to the 2010-13 Bortz surveys (consistent with the actual Bortz response rates) and that they would have allocated 100% to the PTV category. *See* April 17, 2017 Amended Testimony of Linda McLaughlin and David Blackburn (Amended McLaughlin/Blackburn testimony) at 14. The McLaughlin/Blackburn adjustments raise the PTV share in the 2010-13 Bortz surveys from an average of 5.1% to between 7.5% and 8.5% for the four-year period. *See* Amended McLaughlin/Blackburn testimony at 16; Table 8 below.<sup>21</sup> McLaughlin/Blackburn also note that the average 2010-13 augmented share of 8.0% is approximately 31% higher than the 2004-05 Bortz augment share of 6.1-6.2%. *See* Amended McLaughlin/Blackburn testimony at 15-16. McLaughlin/Blackburn do not include in their testimony a year-by-year breakdown of their adjustment. That breakdown is set forth below in Appendix Table A-2.

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<sup>21</sup> Chart 3 on page 16 of the Amended McLaughlin/Blackburn testimony shows a range for the PTV (7.5-8.5%) and Canadian (1.2-2.2%) categories. The ranges reflect alternative treatments of systems that carried both PTV and Canadian signals as their only distant signals. The higher value for PTV (and the corresponding lower value for the Canadian category) attributes 100% of the value accorded these systems to PTV, while the lower value for PTV (and corresponding higher value for the Canadian category) attributes 100% of the value accorded these same systems to the Canadian category.

**Table 8. Unadjusted Bortz and McLaughlin/Blackburn  
Augmented Bortz Survey Response Comparison, 2010-13**

<b>Program Type</b>	<b>Average: 2010-13</b>	
	<b>Unadjusted Bortz</b>	<b>McLaughlin/ Blackburn Augmented Bortz*</b>
Live Team Sports	38.2%	36.6%
News	20.6%	19.7%
Syndicated	14.7%	14.0%
Movies	16.3%	15.6%
Devotional	4.6%	4.4%
PTV	5.1%	8.0%
Canadian	0.5%	1.7%
TOTAL	100.0%	100.0%

Columns may not add to total due to rounding.

\*Utilizes average of two allocation methodologies used by  
McLaughlin/Blackburn to account for systems that carried both PTV  
and Canadian signals as their only distant signals.

The results of the 2010-13 Horowitz surveys suggest that it is incorrect to assume, as McLaughlin/Blackburn did, that PTV-only Systems would allocate 100% of their distant signal program budget to the PTV category. As explained below, most of the Horowitz PTV-only respondents allocated less than 100% to PTV, even though PTV was the only distant signal category carried by those systems. It may be that the respondents were confused by the Horowitz question (which, as noted above, is one reason why Bortz has never surveyed PTV-only Systems). It also is possible that the Horowitz respondents, all of whom represented

“minimum fee” systems, simply did not value the PTV signals as highly as their minimum fee.<sup>22</sup>

In any event, accounting for the Horowitz survey results would produce the revised “augmented” 2010-13 shares set forth in Table 9 rather than the “augmented” shares suggested by McLaughlin/Blackburn. A year-by-year breakdown is set forth in Appendix Table A-2.

**Table 9. Unadjusted Bortz and Revised McLaughlin/Blackburn  
Augmented Bortz Survey Response Comparison, 2010-13**

<b>Program Type</b>	<b>Average: 2010-13</b>	
	<b>Unadjusted Bortz</b>	<b>Revised McLaughlin/ Blackburn Augmented Bortz*</b>
Live Team Sports	38.2%	37.1%
News	20.6%	20.1%
Syndicated	14.7%	14.2%
Movies	16.3%	15.8%
Devotional	4.6%	4.4%
PTV	5.1%	6.6%
Canadian	0.5%	1.7%
TOTAL	100.0%	100.0%

Columns may not add to total due to rounding.

\*Utilizes average of two allocation methodologies used by McLaughlin/Blackburn to account for systems that carried both PTV and Canadian signals as their only distant signals.

As mentioned above, McLaughlin/Blackburn also argue that because their “augmented” 2010-13 Bortz share for PTV is about 31% higher than PTV’s “augmented” share in the 2004-05

<sup>22</sup> All cable systems are required to pay a minimum royalty fee regardless of whether they carry any distant signals. The minimum fee is based on a system carrying 1.0 Distant Signal Equivalents (DSE). Thus, cable systems that carry a combination of fully or partially distant signals such that their aggregate DSE value is equal to 1.0 or less pay only the minimum fee.

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Bortz surveys, PTV's 2010-13 award should be about 31% higher than its 2004-05 award of 7.55%, i.e., 9.9%. The revised "augmented" share is 7% higher, not 31%. Furthermore, in their 2004-05 Distribution Order, the Judges did not consider prior Bortz survey results or prior PTV "augmented" shares in evaluating the McLaughlin methodology. Rather, they considered the McLaughlin "augmented" Bortz shares for the instant years (2004-05) on their own merits, and then calculated the PTV share of the Basic Fund by accounting for the fact that PTV does not participate in the 3.75 fund (i.e., they divided the McLaughlin augmented shares by the percent of Form 3 royalties in the Basic Fund – 85.0% in 2004 and 85.9% in 2005). In doing so, they accepted the recommendations made by both PTV and certain other parties. *See* 2004-05 Order at 27, *citing* Settling Parties' Proposed Findings of Fact at Paragraph 317. As shown on Table 10 below, using the same approach for 2010-13 (and the Horowitz results discussed above) results in a PTV share of 7.7% – less than the 9.9% suggested by McLaughlin/Blackburn.<sup>23</sup>

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<sup>23</sup> The Judges made a small further adjustment to PTV's share to account for the fact that the Devotional Claimants received less than their Bortz survey share. *See* 2004-05 Order at 28. However, because the Devotional Claimants' Bortz survey share in 2010-13 is less than it was in 2004-05, such an adjustment would still leave the PTV share below the requested 9.9%.

**Table 10. Unadjusted Bortz and Revised  
McLaughlin/Blackburn Augmented Bortz Share of Basic Fund,  
2010-13**

<b>Program Type</b>	<b>Average: 2010-13</b>	
	<b>Unadjusted Bortz</b>	<b>Revised McLaughlin/ Blackburn Augmented Bortz Basic Fund Share*</b>
Live Team Sports	38.2%	36.7%
News	20.6%	19.8%
Syndicated	14.7%	14.0%
Movies	16.3%	15.7%
Devotional	4.6%	4.4%
PTV	5.1%	7.7%
Canadian	<u>0.5%</u>	<u>1.7%</u>
TOTAL	100.0%	100.0%

Columns may not add to total due to rounding.

\*Utilizes average of two allocation methodologies used by  
McLaughlin/Blackburn to account for systems that carried both PTV  
and Canadian signals as their only distant signals.

**C. Design Flaws Inflate PTV's Valuation in the 2010-13 Horowitz Surveys**

McLaughlin/Blackburn also rely upon the 2010-13 Horowitz surveys, stating that they reflect a "substantially higher share" for PTV than the augmented 2010-13 Bortz surveys, i.e., 12.9% in Horowitz compared to the 7.5%-8.5% in the unrevised McLaughlin/Blackburn augmentation.<sup>24</sup> See Amended McLaughlin/Blackburn testimony at 17, and Appendix Table A-2

<sup>24</sup> McLaughlin/Blackburn suggest that a reason for the higher value attributed to the PTV category in the Horowitz survey as compared with the Bortz survey may have been that certain large royalty payers responded to the Horowitz survey but did not respond to the Bortz survey. See McLaughlin/Blackburn testimony at 17. This factor is only relevant if the royalties paid by

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for year-by-year percentages. The “higher” PTV share, however, is attributable to design flaws in the 2010-13 Horowitz surveys that inflate PTV’s share.

**1. Over-Representation of PTV-only Systems**

The Horowitz survey design sought to include cable systems that carried PTV signals as their only distant signals (PTV-only Systems). In the allocation question for these types of systems, interviewers asked respondents about only one type of programming (i.e., the PTV category). The respondent was asked to estimate the relative value to their system of that programming type, and only that type, and was first asked to write the PTV description down before providing an answer. The question read to the respondent is presented below. (2013 version). *See* Horowitz testimony at 32-37.

“Now, considering everything we have been discussing, I would like you to estimate the relative value to your cable system of each type of programming actually broadcast during 2013 by [PTV station(s)]. We would like you to be very precise about this; can I ask you first to write down the types of programming on these distant stations? Please write them down in the order I read them. Here they are:

“Programs broadcast only on PBS station(s) \_\_\_\_\_. Examples include Masterpiece Classic: Downton Abbey Season III, Masterpiece Mystery!, PBS NewsHour, and Sesame Street.”

Assume you had a fixed dollar amount to allocate for the programming actually broadcast during 2013 on [PTV station(s)]. Considering the value of the

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cable systems carrying PTV were under-represented in the Bortz survey respondent base. The Bortz and Horowitz survey both employ stratified random samples. To obtain survey results that are projectable to the Form 3 universe, survey responses are weighted by strata and royalty. I have analyzed the representation of systems carrying PTV distant signals among Bortz survey respondents and have determined that the weighted royalties paid by the responding systems carrying PTV signals over the 2010-13 period correspond closely to the total royalties actually paid by all systems carrying PTV signals in the entire universe of Form 3 cable systems. *See* Appendix Table A-5. As such, the McLaughlin/Blackburn reference to large royalty payers does not explain the reason for the higher value attributed to PTV in the Horowitz surveys.



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programs broadcast only on PBS station [...] to your cable system, what percentage, if any, of the fixed dollar amount would you allocate for this type of programming?

In formulating your percentage, please think about all of the factors we have been discussing, including using this programming in your advertising and promotions in 2013 to attract and retain customers, the importance of this programming to you and your subscribers, and any other considerations you may have.

Remember you are only estimating the relative value of each type of programming actually broadcast in 2013 on: [PTV station(s)].

Once you are done, we will review your allocations together. Let me know when you are done.

Across all the distant stations you carry, and considering the value to your cable system, what percentage, if any, of the fixed dollar amount would you allocate to:

“Programs broadcast only on PBS station(s) \_\_\_\_\_. Examples include Masterpiece Classic: Downton Abbey Season III, Masterpiece Mystery!, PBS NewsHour, and Sesame Street.”

As noted above, three quarters of the respondents to the PTV-only version of the Horowitz survey did not make a 100 percent value allocation to this program type even though this was the only type provided to them as a response option.<sup>25</sup> See Table 11 below.

**Table 11. Allocation Summary for Horowitz Responding PTV-Only Systems, 2010-13**

<b>Completed Surveys</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Total: 2010-13</b>
PTV-Only Systems	9	13	5	13	40
Allocated 100%	8	0	0	2	10
Allocated Less Than 100%	1	13	5	11	30
Less Than 100% % of Total	11.1%	100.0%	100.0%	84.6%	75.0%
Average Allocation	91.1%	54.2%	22.0%	25.4%	49.1%

<sup>25</sup> As noted above, respondents may have been confused by the question in these cases, since it makes little sense to ask for an “allocation” of value when there is only one category.

However, in calculating weighted results for the Horowitz survey, Dr. Frankel created “e-answers” for these systems in order to assign 100% of their royalties to PTV, rather than using the respondents’ actual answers to the surveys.<sup>26</sup> Using the actual responses of these systems would lower the Horowitz PTV allocations by 1.7 percentage points in 2013, 0.7 percentage points in 2012, 1.9 percentage points in 2011 and 0.3 percentage points in 2010.

Stated otherwise, the weighted Horowitz results do not directly reflect the Horowitz findings for these systems, but rather incorporate an adjustment that mirrors the McLaughlin/Blackburn augmentation (see above) that has been applied to the Bortz survey results in prior proceedings. However, the McLaughlin/Blackburn augmentation assures that an appropriate weight is applied to the PTV-only (and Canadian-only) systems by attributing weights to them that are consistent with the strata distribution of these systems as well as the overall survey response rates.<sup>27</sup> The Horowitz/Frankel methodology, on the other hand, relied on the actual response rates achieved by Horowitz among these systems. In so doing, Horowitz/Frankel over-weighted the PTV-only Systems by an average of approximately one percentage point per year.<sup>28</sup> This overweighting had the effect of further inflating the PTV share in the survey results reported by Horowitz.

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<sup>26</sup> The approach used by Dr. Frankel is not described in his testimony, nor is the use of “e-answers” acknowledged. However, the methodology employed is evident from a review of underlying documents. See MPAA\_2010.f90, MPAA\_2011.f90, MPAA\_2012.f90 and MPAA\_2013.f90.

<sup>27</sup> Only one Canadian-only system responded to the survey over the four-year period (in 2011). Therefore, inclusion of a Canadian-only questionnaire was of no consequence to the Horowitz survey findings.

<sup>28</sup> I asked CDC to calculate the weighted percentage of total royalties accounted for by PTV-only respondents to the Horowitz surveys. On a weighted basis, CDC calculated that the PTV-only respondents to the Horowitz surveys accounted for an average of 3.2% of total royalties. By comparison, the PTV-only Systems included in the CDC Form 3 universe data used in the Horowitz surveys and produced by Program Suppliers accounted for an average of just 2.15% of

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## **2. Inflation of PTV Share from a Single Outlier Response**

The PTV share in the Horowitz surveys is largely dependent upon the responses from a single MSO whose respondent in each year valued the PTV category much more highly than other respondents. In each year, the respondent for that MSO alone accounted for between 15% and 23% of the responses to the Horowitz survey.<sup>29</sup> The surveys accounted for by this MSO's respondent in each year far outnumbered those accounted for by any other unique Horowitz respondent in that year. Moreover, the allocations to the PTV category for this single MSO averaged over 45% for 2010-2013 – a level that is more than four times the median Horowitz PTV allocation of 10% and is a clear outlier in relation to the allocations typically assigned to the category. As such, each year's Horowitz findings for the PTV category are very sensitive to the presence (or lack thereof) of a single individual. Specifically, if the responses of one respondent were removed from the Horowitz results each year, the 2010-13 average Horowitz PTV allocation would decline by almost five percentage points.

## **3. Valuation of Exempt Signals For which No Royalty Was Paid**

In the Bortz surveys, the distant signals about which each respondent is questioned are identified on the hard copy survey questionnaires (redacted copies of which have been produced by JSC in these proceedings); Bortz identified these distant signals by reviewing the statements

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the total Form 3 universe royalties. *See* "JSC\_CDC Analysis Version of APKS\_SUMMARYTABLE\_2010-2013\_5SEPT17.xlsx."

<sup>29</sup> Several other Horowitz survey respondents also answered on behalf of multiple systems. Certain respondents to the Bortz survey answered on behalf of multiple systems as well, although none of the Bortz respondents accounted for more than 7% of the responses in any given year. *See* Appendix Tables A-3 and A-4. Moreover, Bortz respondents were in all cases required to complete a separate survey for each system (even if its signal carriage pattern was identical to another system for which they were responsible), which I understand was not the case with the Horowitz respondents.

of account that the sample systems filed with the Copyright Office. Program Suppliers, on the other hand, have not produced completed hard copy questionnaires identifying the distant signals that each Horowitz respondent was asked to value. Rather, in response to discovery requests from JSC, Program Suppliers advised that the Horowitz interviewers relied upon electronic spreadsheets that Cable Data Corporation (CDC) had created and that identified distant signals.<sup>30</sup> A sample of these spreadsheets for the years 2010-13 is contained in Appendix C.

A review of these spreadsheets discloses an important difference between the years 2010-11, on the one hand, and 2012-13, on the other hand. Specifically, the 2012-13 spreadsheets list many signals that are identified in column T (Basis of Carriage) as having “exempt” status (i.e., as signals that cable systems carried without paying any Section 111 royalty, while the 2010-11 spreadsheets do not list any “exempt” distant signals).<sup>31</sup>

The Horowitz testimony (and underlying documents produced by Program Suppliers) do not indicate one way or another whether interviewers asked the Horowitz respondents in 2012 and 2013 about all signals listed in the CDC spreadsheet for a given system, or whether they somehow determined that the signals identified by the CDC spreadsheets as “exempt” should be excluded. However, at least three Horowitz respondents in 2012 were asked to assign value to the PTV program type when the only PTV signals listed in the CDC spreadsheet were identified

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<sup>30</sup> See April 12, 2017 letter from L. Plovnick to R. Garrett at 6-8.

<sup>31</sup> When Congress amended Section 111 in 2010, it determined that CSOs should not be required to pay royalties for multicast signals in certain circumstances, including where carriage was made pursuant to an agreement entered into prior to June 30, 2009 between a trade association representing cable systems and an association representing broadcast stations. See <https://www.copyright.gov/docs/stela/stela-faq.html>. In 2005 the Association of Public Television Stations (APTS) and the (then) National Cable & Telecommunications Association (NCTA) entered into an agreement concerning the carriage of PTV station digital multicast signals. See <https://current.org/wp-content/uploads/archive-site/dtv/dtv0502ncta.shtml>.

as “exempt.”<sup>32</sup> See Appendix D. This raises a question about whether all respondents for whom exempt signals were listed were asked about those signals. This issue is important with respect to the Horowitz PTV allocation because almost three-quarters of the multicast signals identified by CDC as exempt are PTV multicast signals (“Exempt PTV Multicast Signals”). If Horowitz respondents in 2012 and 2013 were asked to ascribe value to Exempt PTV Multicast Signals for which they paid no Section 111 royalty, this would have represented more than 400 such signals during those two years.<sup>33</sup> Looked at another way, of the 244 Horowitz cable systems that carried at least one PTV distant signal, 104 or 43% would have been asked to value at least one PTV multicast distant signal for which they paid no royalty.<sup>34</sup>

#### **VI. Adjustments to the 2010-13 Horowitz Surveys**

As discussed above, there are substantial problems with the design of the Horowitz surveys. Primary among these are the addition of a third Program Suppliers category (“Other Sports”) that does not warrant inclusion as a distinct category, and the failure to even partially account for the compensability of programming on WGNA. In addition, the Horowitz surveys used examples that serve to bias the Horowitz survey results in favor of Program Suppliers (and the Devotional claimants), and contain representation and survey execution errors that combine to overstate the PTV allocation.

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<sup>32</sup> Bortz Media analysis of the CDC created document APKS\_MASKEDSAMPLE\_distant\_carriage\_with\_boc\_and\_ds\_and\_current\_ds\_and\_stratum\_boc\_ExemptSep\_2010\_2013.xlsx.

<sup>33</sup> *Id.*

<sup>34</sup> The multicast signals CDC identified as exempt also included exempt commercial signals. Of the 691 (410 in 2012 and 2013) Horowitz cable systems that carried at least one commercial distant signal, 43 or 6.2% (10.5% in 2012 and 2013) would have been asked to value at least one commercial multicast distant signal for which they paid no royalty.

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The issues related to improper examples and the creation of an “Other Sports” category are most pronounced among surveys of WGN-only Systems and WGN/PTV-only Systems. There is a substantial difference in the valuations given by Horowitz and Bortz WGN-only and WGN/PTV-only respondents. *See* page 11 above. For the reasons discussed above, none of the responses provided by the Horowitz respondents for WGN-only and WGN/PTV-only Systems should be accorded any weight; rather, the Bortz WGN-only and WGN/PTV-only responses provide a better estimate of relative valuations among these respondents. I have substituted the Bortz WGN-only and WGN/PTV-only responses for the Horowitz WGN-only and WGN/PTV only responses, and also excluded the Horowitz PTV-only responses in order to provide a basis for comparing the Horowitz results with those obtained in the Bortz surveys. Table 12 and Figure 5 below show this comparison.

Table 12. Horowitz (Adjusted)\* and Bortz Survey Response Comparison, 2010-13

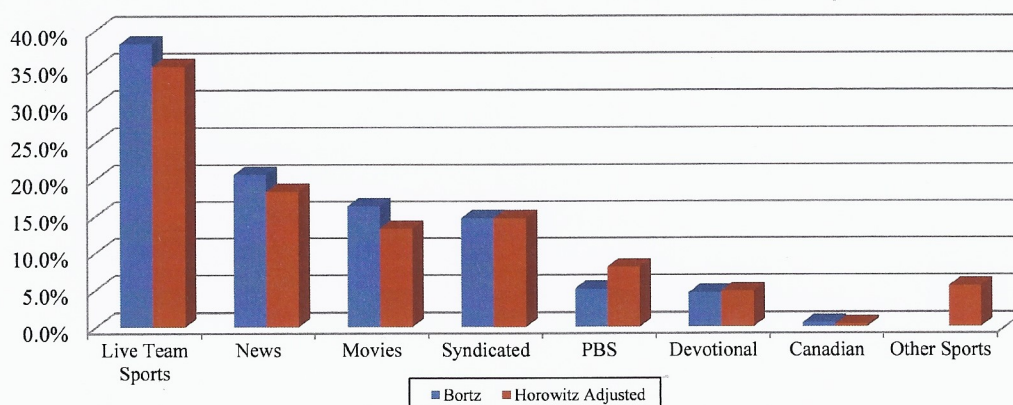
Program Type	2010		2011		2012		2013		Average: 2010-13	
	Horowitz	Bortz	Horowitz	Bortz	Horowitz	Bortz	Horowitz	Bortz	Horowitz	Bortz
Live Team Sports	38.1%	40.9%	32.7%	36.4%	32.4%	37.9%	37.5%	37.7%	35.2%	38.2%
News	19.5%	18.7%	15.6%	18.3%	19.6%	22.8%	18.5%	22.7%	18.3%	20.6%
Syndicated	15.6%	16.0%	17.5%	17.4%	13.4%	13.5%	12.2%	11.8%	14.7%	14.7%
Movies	15.3%	15.9%	15.4%	18.6%	11.6%	15.3%	10.8%	15.5%	13.3%	16.3%
Devotional	4.4%	4.0%	4.9%	4.5%	5.5%	4.8%	4.4%	5.0%	4.8%	4.6%
PTV	2.9%	4.4%	7.0%	4.7%	11.0%	5.1%	11.4%	6.2%	8.1%	5.1%
Canadian	0.0%	0.1%	0.0%	0.2%	0.9%	0.6%	0.4%	1.2%	0.3%	0.5%
Other Sports	4.2%	NA	7.0%	NA	5.6%	NA	5.0%	NA	5.5%	NA
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Columns may not add to total due to rounding.

\*Horowitz WGN-only and WGN/PTV-only responses replaced with Bortz results for those system types; Horowitz PTV-only systems excluded.

Source: Bortz Report at 3; and JSC\_CDC Analysis Version of APKS\_SUMMARYTABLE\_2010-2013\_5SEPT17.xlsx

**Figure 5. Bortz and Horowitz (Adjusted)\* Average Cable Operator Allocation of Value by Distant Signal Program Type, 2010-13**



\*Horowitz WGN-only and WGN/PTV-only results replaced with Bortz results for those system types; Horowitz PTV-only results excluded.

The Horowitz errors underlying the PTV allocation are more difficult to illustrate comparatively because it is unclear how adjustments for some of these allocations would affect other programming categories. Even so, Table 13 and Figure 6 below compare the McLaughlin/Blackburn augmented Bortz results with Horowitz results that include PTV-only Systems (reflecting actual survey responses) and the WGN-only and WGN/PTV-only adjustment previously described.

**Table 13. Horowitz (Adjusted)\* and Revised Bortz McLaughlin/Blackburn Augmented Survey Response Comparison, 2010-13**

Program Type	2010		2011		2012		2013		Average: 2010-13	
	Horowitz	Bortz	Horowitz	Bortz	Horowitz	Bortz	Horowitz	Bortz	Horowitz	Bortz
Live Team Sports	36.9%	39.1%	31.5%	34.9%	32.3%	37.5%	36.9%	37.0%	34.4%	37.1%
News	18.9%	17.8%	15.1%	17.5%	19.6%	22.6%	18.2%	22.3%	17.9%	20.1%
Syndicated	15.1%	15.3%	16.8%	16.7%	13.4%	13.4%	12.0%	11.6%	14.3%	14.2%
Movies	14.8%	15.2%	14.8%	17.9%	11.6%	15.1%	10.6%	15.2%	12.9%	15.8%
Devotional	4.3%	3.8%	4.7%	4.3%	5.5%	4.7%	4.3%	5.0%	4.7%	4.4%
PTV	6.1%	7.2%	9.5%	6.9%	11.1%	5.5%	12.7%	6.9%	9.9%	6.6%
Canadian	0.0%	1.6%	1.0%	1.9%	0.9%	1.2%	0.4%	2.1%	0.6%	1.7%
Other Sports	4.1%	NA	6.7%	NA	5.6%	NA	4.9%	NA	5.3%	NA
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

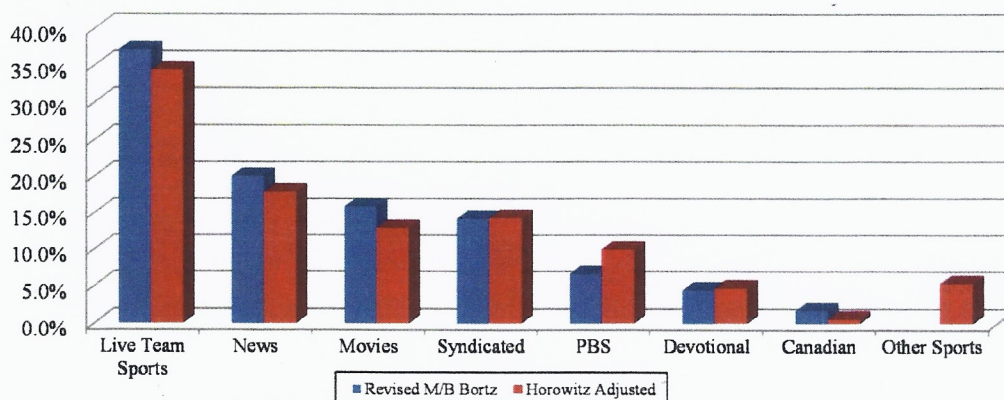
Columns may not add to total due to rounding.

\*Horowitz WGN-only and WGN/PTV-only responses replaced with Bortz results for those system types; Horowitz PTV-only systems included, but adjusted for actual universe weight.

Source: Appendix Table A-2; and JSC\_CDC Analysis Version of APKS\_SUMMARYTABLE\_2010-2013\_5SEPT17.xlsx



**Figure 6. Revised Bortz McLaughlin/Blackburn Augmented and Horowitz (Adjusted)\* Average Cable Operator Allocation of Value by Distant Signal Program Type, 2010-13**



\*Horowitz WGN-only and WGN/PTV-only results replaced with Bortz results for those system types; Horowitz PTV-only results included but adjusted to reflect actual universe weight.

The remaining difference in the results is likely explained by the other, uncorrected factors discussed in this testimony. Further, it is important to note that the results of both surveys overstate the Program Suppliers and Devotional shares (at the expense of JSC, CTV and PTV) due to the WGNA compensability issue – which is not fully accounted for in either survey. Note also that the above calculations do not include any adjustment for the Exempt PTV Signal issue discussed above.

I declare under penalty of perjury that the foregoing is true and correct.

James M. Trautman  
James M. Trautman

10/4/17  
Date

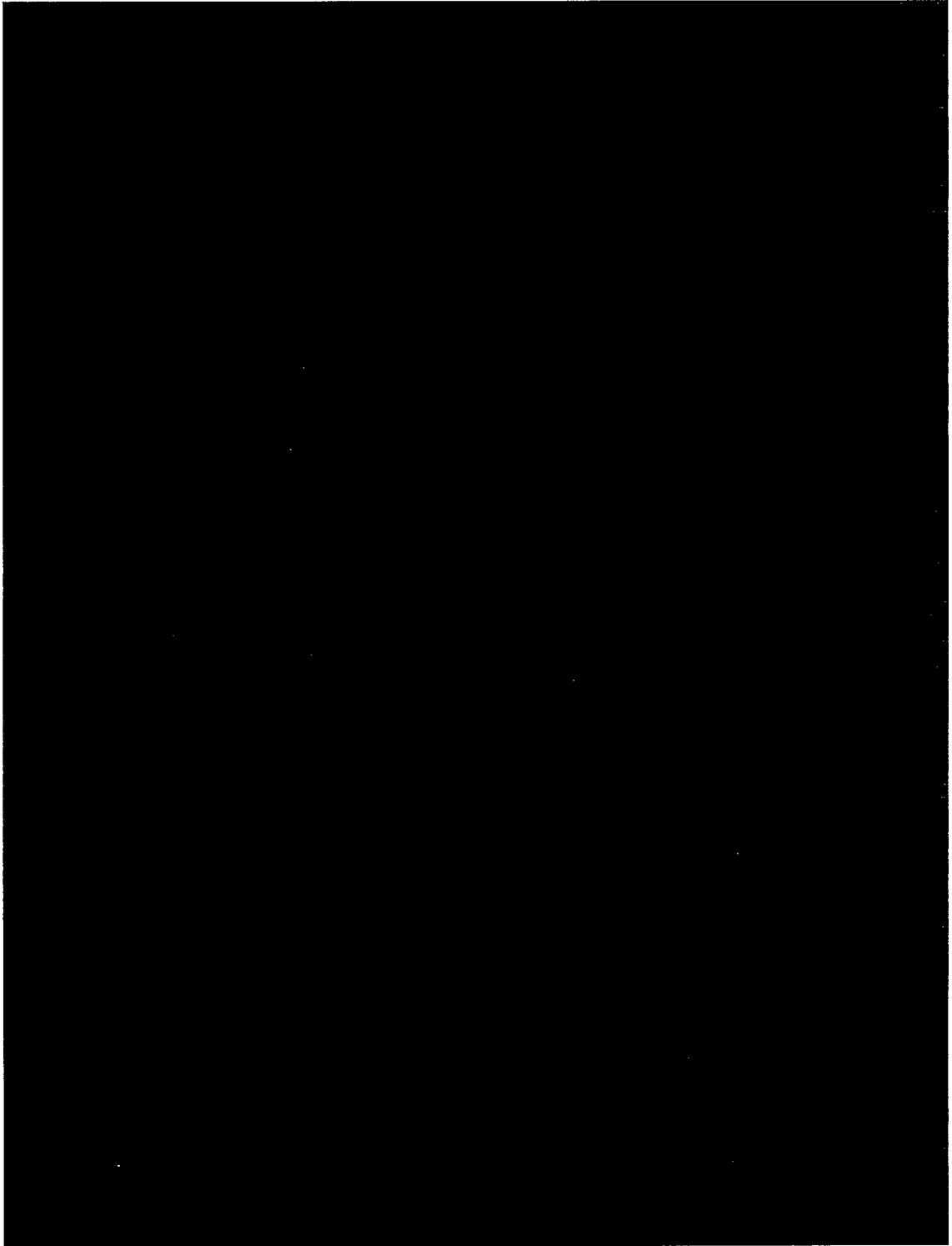


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**APPENDIX A**

**Supporting Data Tables**

**Table A-1. Unique Distant Subscribers by Signal Type, 2010-13**



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Table A-2. Comparison of Original and Adjusted Bortz and Horowitz Survey Allocations by Year, 2010-13

2010							
Program Type	Bortz Survey	Horowitz Survey	Revised McLaughlin/ Blackburn Augmented		Revised McLaughlin/ Blackburn Augmented		Horowitz- Adjusted (ex. PTV-only)***
			Bortz	Bortz*	Bortz (Exc. 3.75)	Horowitz- Adjusted**	
Live Team Sports	40.9%	31.9%	39.0%	39.1%	38.6%	36.8%	38.0%
News	18.7%	12.4%	17.8%	17.8%	17.6%	18.8%	19.4%
Syndicated	16.0%	20.3%	15.2%	15.3%	15.1%	15.3%	15.8%
Movies	15.9%	17.2%	15.1%	15.2%	15.0%	14.9%	15.4%
Devotional	4.0%	6.8%	3.8%	3.8%	3.8%	4.2%	4.4%
PTV	4.4%	3.8%	7.5%	7.2%	8.3%	5.8%	2.9%
Canadian	0.1%	0.0%	1.6%	1.6%	1.6%	0.0%	0.0%
Other Sports	NA	6.8%	NA	NA	NA	4.1%	4.2%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

2011							
Program Type	Bortz Survey	Horowitz Survey	Revised McLaughlin/ Blackburn Augmented		Revised McLaughlin/ Blackburn Augmented		Horowitz- Adjusted (ex. PTV-only)***
			Bortz	Bortz*	Bortz (Exc. 3.75)	Horowitz- Adjusted**	
Live Team Sports	36.4%	27.1%	34.2%	34.9%	34.5%	31.4%	32.6%
News	18.3%	12.9%	17.2%	17.5%	17.3%	15.1%	15.6%
Syndicated	17.4%	17.6%	16.3%	16.7%	16.5%	16.8%	17.4%
Movies	18.6%	11.4%	17.5%	17.9%	17.6%	14.8%	15.4%
Devotional	4.5%	5.9%	4.2%	4.3%	4.2%	4.7%	4.9%
PTV	4.7%	13.3%	8.7%	6.9%	8.0%	9.4%	7.0%
Canadian	0.2%	1.0%	1.8%	1.9%	1.9%	1.0%	0.0%
Other Sports	NA	10.8%	NA	NA	NA	6.8%	7.0%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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Table A-2 (Continued). Comparison of Original and Adjusted Bortz and Horowitz Survey Allocations by Year, 2010-13

2012							
Program Type	Bortz Survey	Horowitz Survey	Revised McLaughlin/ Blackburn Augmented		Revised McLaughlin/ Blackburn Augmented		Horowitz- Adjusted (ex. PTV-only)***
			Bortz	Bortz*	Bortz (Exc. 3.75)	Horowitz- Adjusted**	
Live Team Sports	37.9%	25.5%	37.0%	37.5%	37.1%	32.2%	32.6%
News	22.8%	15.7%	22.3%	22.6%	22.4%	19.5%	19.7%
Syndicated	13.5%	16.0%	13.2%	13.4%	13.2%	13.2%	13.3%
Movies	15.3%	12.1%	14.9%	15.1%	15.0%	11.4%	11.5%
Devotional	4.8%	5.7%	4.6%	4.7%	4.7%	5.5%	5.6%
PTV	5.1%	15.1%	6.9%	5.5%	6.5%	11.7%	10.7%
Canadian	0.6%	0.9%	1.2%	1.2%	1.2%	0.9%	0.9%
Other Sports	NA	9.0%	NA	NA	NA	5.7%	5.8%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

2013							
Program Type	Bortz Survey	Horowitz Survey	Revised McLaughlin/ Blackburn Augmented		Revised McLaughlin/ Blackburn Augmented		Horowitz- Adjusted (ex. PTV-only)***
			Bortz	Bortz*	Bortz (Exc. 3.75)	Horowitz- Adjusted**	
Live Team Sports	37.7%	35.3%	36.1%	37.0%	36.6%	36.9%	38.8%
News	22.7%	9.5%	21.7%	22.3%	22.0%	18.2%	19.2%
Syndicated	11.8%	16.3%	11.3%	11.6%	11.4%	11.9%	12.5%
Movies	15.5%	12.4%	14.8%	15.2%	15.0%	10.6%	11.1%
Devotional	5.0%	3.5%	4.8%	5.0%	4.9%	4.3%	4.5%
PTV	6.2%	15.4%	9.1%	6.9%	8.0%	12.9%	8.4%
Canadian	1.2%	0.4%	2.0%	2.1%	2.1%	0.4%	0.4%
Other Sports	NA	7.4%	NA	NA	NA	4.9%	5.1%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

\*Adjusts McLaughlin results to account for Horowitz survey allocations of less than 100% for PTV-only respondents.

\*\*Horowitz WGN-only and WGN/PTV-only responses replaced with Bortz results for those system types; Horowitz PTV-only systems included, but adjusted for actual universe weight.

\*\*\*Horowitz WGN-only and WGN/PTV-only responses replaced with Bortz results for those system types; Horowitz PTV-only systems excluded.

Note: Columns may not add to total due to rounding.

**Table A-3. Number of Unique Respondents and Responding Systems to Bortz and Horowitz Surveys, 2010-13**

<b>Completed Surveys</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Total: 2010-13</b>
<i>Bortz Surveys:</i>					
Responding Systems	163	161	170	160	654
Unique Respondents	68	81	74	72	295
<i>Horowitz Surveys:</i>					
Responding Systems	123	182	228	200	733
Unique Respondents	31	43	42	41	157

Sources: JSC\_2010\_2013\_Masked\_withDistantStations\_MSOchanges\_13July2017.xlsx; and JSC00008255.

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Table A-4. Detailed Unique Respondent Summary

2010						2011					
Bortz			Homwitz			Bortz			Homwitz		
Respondent Number	Number of Systems	Percent of Total	Respondent Number	Number of Systems	Percent of Total	Respondent Number	Number of Systems	Percent of Total	Respondent Number	Number of Systems	Percent of Total
16	11	6.7%	35	28	22.8%	9	10	6.2%	43	27	14.8%
37	9	5.5%	32	12	9.8%	44	8	5.0%	49	19	10.4%
39	8	4.9%	40	12	9.8%	15	7	4.3%	10	13	7.1%
2	6	3.7%	17	8	6.4%	70	6	3.7%	15	10	5.4%
68	6	3.7%	39	7	5.7%	72	6	3.7%	16	8	4.4%
34	5	3.1%	7	6	4.9%	10	5	3.1%	26	8	4.4%
49	5	3.1%	24	5	4.1%	14	5	3.1%	41	7	3.8%
50	5	3.1%	31	5	4.1%	30	5	3.1%	32	6	3.3%
56	5	3.1%	11	3	2.4%	67	5	3.1%	39	6	3.3%
59	5	3.1%	23	3	2.4%	53	4	2.5%	46	6	3.3%
14	4	2.5%	27	3	2.4%	64	4	2.5%	23	5	2.7%
26	4	2.5%	4	3	2.4%	77	4	2.5%	5	5	2.7%
67	4	2.5%	9	3	2.4%	81	4	2.5%	11	4	2.2%
6	3	1.8%	12	2	1.6%	22	3	1.9%	25	4	2.2%
8	3	1.8%	15	2	1.6%	24	3	1.9%	31	4	2.2%
11	3	1.8%	14	2	1.6%	33	3	1.9%	44	4	2.2%
23	3	1.8%	18	2	1.6%	57	3	1.9%	12	3	1.6%
36	3	1.8%	26	2	1.6%	59	3	1.9%	15	3	1.6%
44	3	1.8%	38	2	1.6%	76	3	1.9%	24	3	1.6%
47	3	1.8%	5	2	1.6%	7	2	1.2%	38	3	1.6%
52	3	1.8%	10	1	0.8%	18	2	1.2%	14	2	1.1%
58	3	1.8%	16	1	0.8%	20	2	1.2%	18	2	1.1%
12	2	1.2%	17	1	0.8%	27	2	1.2%	22	2	1.1%
19	2	1.2%	22	1	0.8%	41	2	1.2%	28	2	1.1%
20	2	1.2%	25	1	0.8%	43	2	1.2%	29	2	1.1%
25	2	1.2%	28	1	0.8%	45	2	1.2%	30	2	1.1%
30	2	1.2%	29	1	0.8%	75	2	1.2%	34	2	1.1%
38	2	1.2%	33	1	0.8%	1	1	0.6%	36	2	1.1%
43	2	1.2%	36	1	0.8%	2	1	0.6%	37	2	1.1%
53	2	1.2%	6	1	0.8%	3	1	0.6%	40	2	1.1%
60	2	1.2%	8	1	0.8%	4	1	0.6%	7	2	1.1%
61	2	1.2%				5	1	0.6%	1	1	0.5%
62	2	1.2%	TOTAL	123	100.0%	6	1	0.6%	13	1	0.5%
64	2	1.2%				8	1	0.6%	17	1	0.5%
4	2	1.2%				11	1	0.6%	19	1	0.5%
1	1	0.6%				12	1	0.6%	2	1	0.5%
3	1	0.6%				13	1	0.6%	27	1	0.5%
5	1	0.6%				16	1	0.6%	3	1	0.5%
7	1	0.6%				17	1	0.6%	33	1	0.5%
9	1	0.6%				19	1	0.6%	4	1	0.5%
10	1	0.6%				21	1	0.6%	45	1	0.5%
13	1	0.6%				23	1	0.6%	6	1	0.5%
15	1	0.6%				25	1	0.6%	8	1	0.5%
17	1	0.6%				26	1	0.6%			
18	1	0.6%				28	1	0.6%	TOTAL	182	100.0%
21	1	0.6%				29	1	0.6%			
22	1	0.6%				31	1	0.6%			
24	1	0.6%				32	1	0.6%			
27	1	0.6%				34	1	0.6%			
28	1	0.6%				35	1	0.6%			
29	1	0.6%				36	1	0.6%			
31	1	0.6%				37	1	0.6%			
32	1	0.6%				38	1	0.6%			
33	1	0.6%				39	1	0.6%			
35	1	0.6%				40	1	0.6%			
40	1	0.6%				42	1	0.6%			
41	1	0.6%				46	1	0.6%			
42	1	0.6%				47	1	0.6%			
45	1	0.6%				48	1	0.6%			
46	1	0.6%				49	1	0.6%			
48	1	0.6%				50	1	0.6%			
51	1	0.6%				51	1	0.6%			
54	1	0.6%				52	1	0.6%			
55	1	0.6%				54	1	0.6%			
57	1	0.6%				55	1	0.6%			
63	1	0.6%				56	1	0.6%			
65	1	0.6%				58	1	0.6%			
66	1	0.6%				60	1	0.6%			
TOTAL	163	100.0%				61	1	0.6%			
						62	1	0.6%			
						63	1	0.6%			
						65	1	0.6%			
						66	1	0.6%			
						68	1	0.6%			
						69	1	0.6%			
						71	1	0.6%			
						73	1	0.6%			
						74	1	0.6%			
						78	1	0.6%			
						79	1	0.6%			
						80	1	0.6%			
						TOTAL	161	100.0%			

Sources: Bortz Respondent Data Provided to CDC (CRB 2010 Combined, CRB 2011 Combined, CRB 2012 Combined, and 2013 Combined); and JSC\_2010\_2013 Masked with Data Stations MSOChanges\_13July2017.xlsx.

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Table A-4 (Continued). Detailed Unique Respondent Summary

2012						2013					
Bortz			Horowitz			Bortz			Horowitz		
Respondent Number	Number of Systems	Percent of Total	Respondent Number	Number of Systems	Percent of Total	Respondent Number	Number of Systems	Percent of Total	Respondent Number	Number of Systems	Percent of Total
20	9	5.3%	47	36	15.8%	48	7	4.4%	54	38	19.0%
19	7	4.1%	25	25	11.0%	70	7	4.4%	44	20	10.0%
27	7	4.1%	32	13	5.7%	10	6	3.8%	37	17	8.5%
4	6	3.5%	36	13	5.7%	16	6	3.8%	68	15	7.5%
9	6	3.5%	37	12	5.3%	22	5	3.1%	43	12	6.0%
33	6	3.5%	39	12	5.3%	13	4	2.5%	69	12	6.0%
18	5	2.9%	54	12	5.3%	20	4	2.5%	48	10	5.0%
60	5	2.9%	53	11	4.8%	21	4	2.5%	32	8	4.0%
65	5	2.9%	35	7	3.1%	25	4	2.5%	49	8	4.0%
67	5	2.9%	28	6	2.6%	39	4	2.5%	20	4	2.0%
30	4	2.4%	42	6	2.6%	55	4	2.5%	36	4	2.0%
49	4	2.4%	44	6	2.6%	61	4	2.5%	46	4	2.0%
51	4	2.4%	26	5	2.2%	66	4	2.5%	17	3	1.5%
59	4	2.4%	33	5	2.2%	23	4	2.5%	28	3	1.5%
61	4	2.4%	51	5	2.2%	6	3	1.9%	3	3	1.5%
63	4	2.4%	15	4	1.8%	9	3	1.9%	5	3	1.5%
71	4	2.4%	16	4	1.8%	24	3	1.9%	52	3	1.5%
11	3	1.8%	2	4	1.8%	26	3	1.9%	62	3	1.5%
16	3	1.8%	27	4	1.8%	33	3	1.9%	2	2	1.0%
17	3	1.8%	31	4	1.8%	36	3	1.9%	21	2	1.0%
23	3	1.8%	18	3	1.3%	65	3	1.9%	22	2	1.0%
26	3	1.8%	3	3	1.3%	68	3	1.9%	27	2	1.0%
31	3	1.8%	49	3	1.3%	8	3	1.9%	41	2	1.0%
41	3	1.8%	1	2	0.9%	5	2	1.3%	53	2	1.0%
12	2	1.2%	11	2	0.9%	7	2	1.3%	64	2	1.0%
14	2	1.2%	12	2	0.9%	17	2	1.3%	1	1	0.5%
40	2	1.2%	30	2	0.9%	19	2	1.3%	11	1	0.5%
43	2	1.2%	38	2	0.9%	29	2	1.3%	12	1	0.5%
45	2	1.2%	45	2	0.9%	34	2	1.3%	15	1	0.5%
46	2	1.2%	10	1	0.4%	40	2	1.3%	23	1	0.5%
50	2	1.2%	14	1	0.4%	41	2	1.3%	25	1	0.5%
56	2	1.2%	22	1	0.4%	43	2	1.3%	26	1	0.5%
62	2	1.2%	24	1	0.4%	44	2	1.3%	31	1	0.5%
72	2	1.2%	29	1	0.4%	47	2	1.3%	34	1	0.5%
1	1	0.6%	34	1	0.4%	53	2	1.3%	39	1	0.5%
2	1	0.6%	40	1	0.4%	54	2	1.3%	40	1	0.5%
3	1	0.6%	46	1	0.4%	59	2	1.3%	51	1	0.5%
5	1	0.6%	5	1	0.4%	71	2	1.3%	57	1	0.5%
6	1	0.6%	50	1	0.4%	72	2	1.3%	59	1	0.5%
7	1	0.6%	55	1	0.4%	52	2	1.3%	7	1	0.5%
8	1	0.6%	7	1	0.4%	1	1	0.6%	71	1	0.5%
10	1	0.6%	8	1	0.4%	2	1	0.6%			
13	1	0.6%				3	1	0.6%	TOTAL	200	100.0%
15	1	0.6%	TOTAL	228	100.0%	4	1	0.6%			
21	1	0.6%				11	1	0.6%			
22	1	0.6%				12	1	0.6%			
24	1	0.6%				14	1	0.6%			
25	1	0.6%				15	1	0.6%			
74	1	0.6%				18	1	0.6%			
28	1	0.6%				27	1	0.6%			
29	1	0.6%				28	1	0.6%			
32	1	0.6%				30	1	0.6%			
34	1	0.6%				31	1	0.6%			
35	1	0.6%				32	1	0.6%			
36	1	0.6%				35	1	0.6%			
37	1	0.6%				37	1	0.6%			
38	1	0.6%				38	1	0.6%			
39	1	0.6%				42	1	0.6%			
42	1	0.6%				45	1	0.6%			
44	1	0.6%				46	1	0.6%			
47	1	0.6%				49	1	0.6%			
48	1	0.6%				50	1	0.6%			
52	1	0.6%				51	1	0.6%			
53	1	0.6%				56	1	0.6%			
54	1	0.6%				57	1	0.6%			
55	1	0.6%				58	1	0.6%			
57	1	0.6%				60	1	0.6%			
58	1	0.6%				62	1	0.6%			
64	1	0.6%				63	1	0.6%			
66	1	0.6%				64	1	0.6%			
68	1	0.6%				67	1	0.6%			
69	1	0.6%				69	1	0.6%			
70	1	0.6%									
73	1	0.6%				TOTAL	160	100.0%			
TOTAL	170	100.0%									

Sources: Bortz Respondent Data Provided to CDC (CRB 2010 Combined; CRB 2011 Combined; CRB 2012 Combined; and 2013 Combined); and JSC 2010 2013\_Masked with Distant Stations MSO changes 13July2017.xlsx

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Table A-5. Bortz Survey Representation of Cable Systems with PTV Distant Signal

	<b>Bortz Survey Universe Projection*</b>		<b>Actual Form 3 Universe**</b>	
	<b>Total Royalties for Cable Systems with 1+ PTV and 1+ U.S. Commercial Distant Signals</b>	<b>Percent of Royalties for All Systems with 1+ U.S. Commercial Distant Signals</b>	<b>Total Royalties for Cable Systems with 1+ PTV and 1+ U.S. Commercial Distant Signals</b>	<b>Percent of Royalties for All Systems with 1+ U.S. Commercial Distant Signals</b>
2010	\$40,832,984	48.7%	\$39,829,778	47.5%
2011	\$55,287,762	61.4%	\$50,998,530	56.6%
2012	\$60,806,312	63.1%	\$63,347,906	65.7%
2013	\$62,326,917	62.7%	\$67,059,062	67.5%
2010-13	\$219,253,975	59.3%	\$221,235,276	59.8%

\*Projections are based on the distribution of PTV-carrying systems in the Bortz respondent pool.

\*\*Based on CDC 12-16 data.

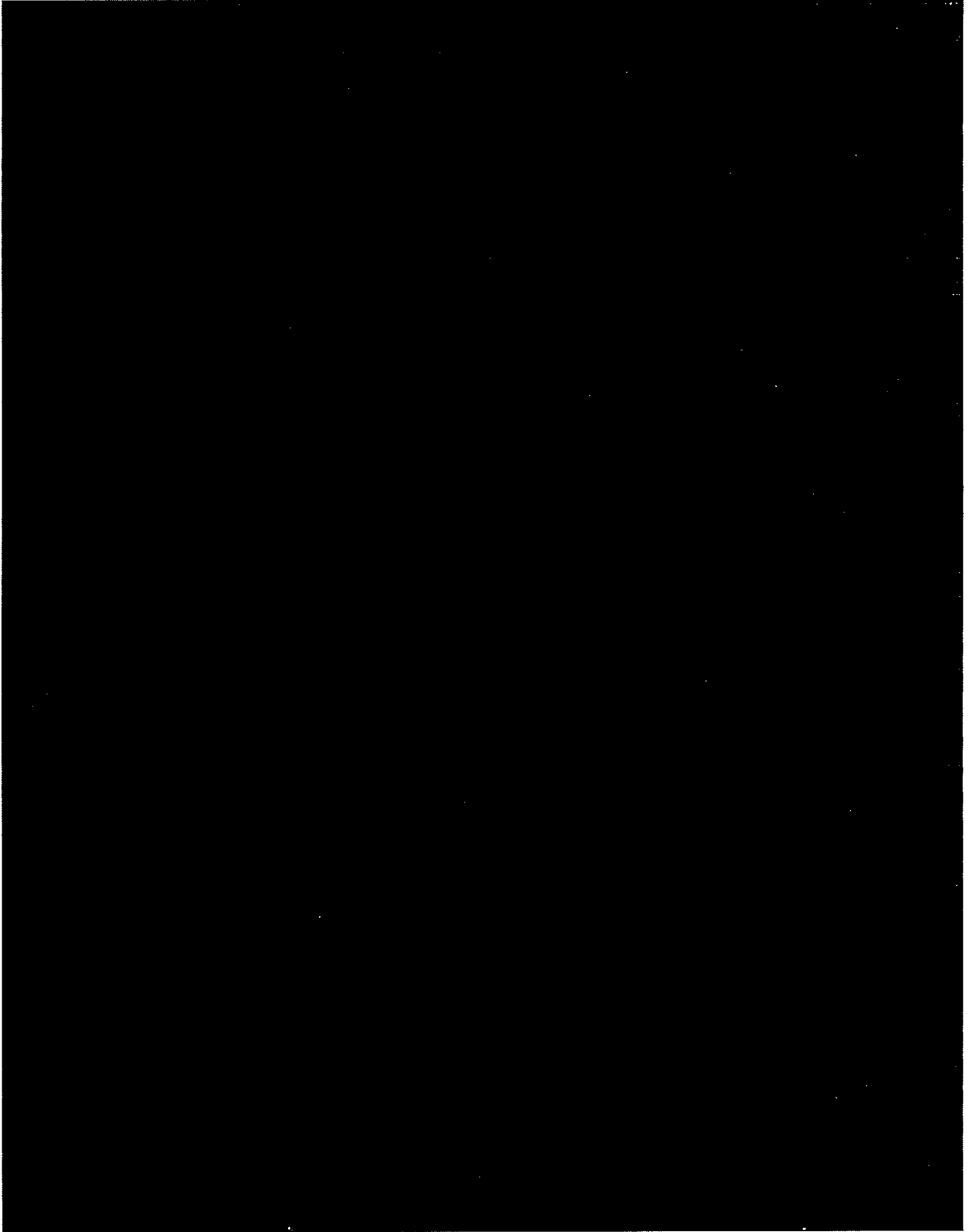


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**APPENDIX B.**

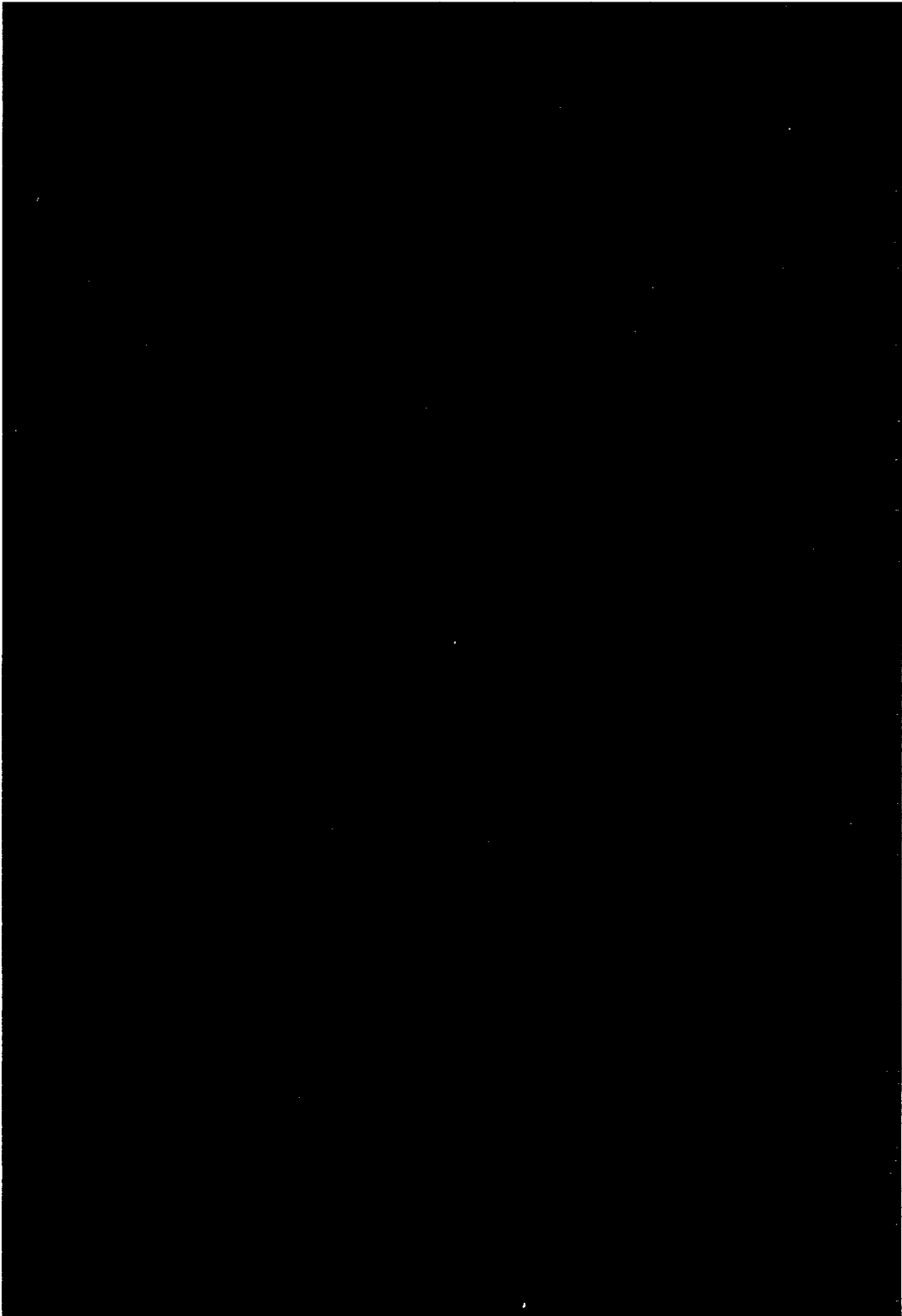
**WGNA Compensable Programs and Categorization in Dr. Gray's Database**

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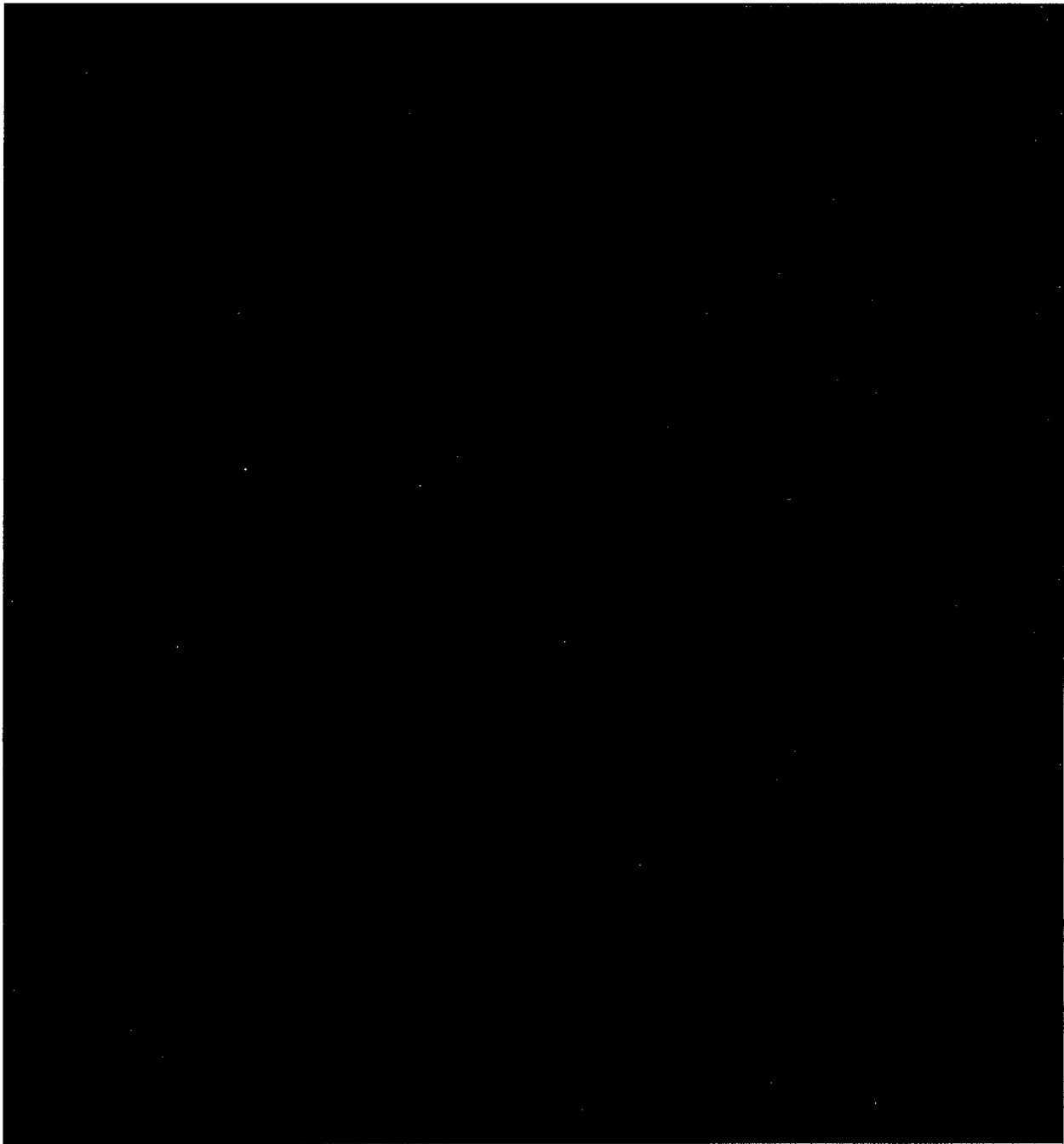
Rebuttal Testimony of James M. Trautman - B-2

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Rebuttal Testimony of James M. Trautman - B-3

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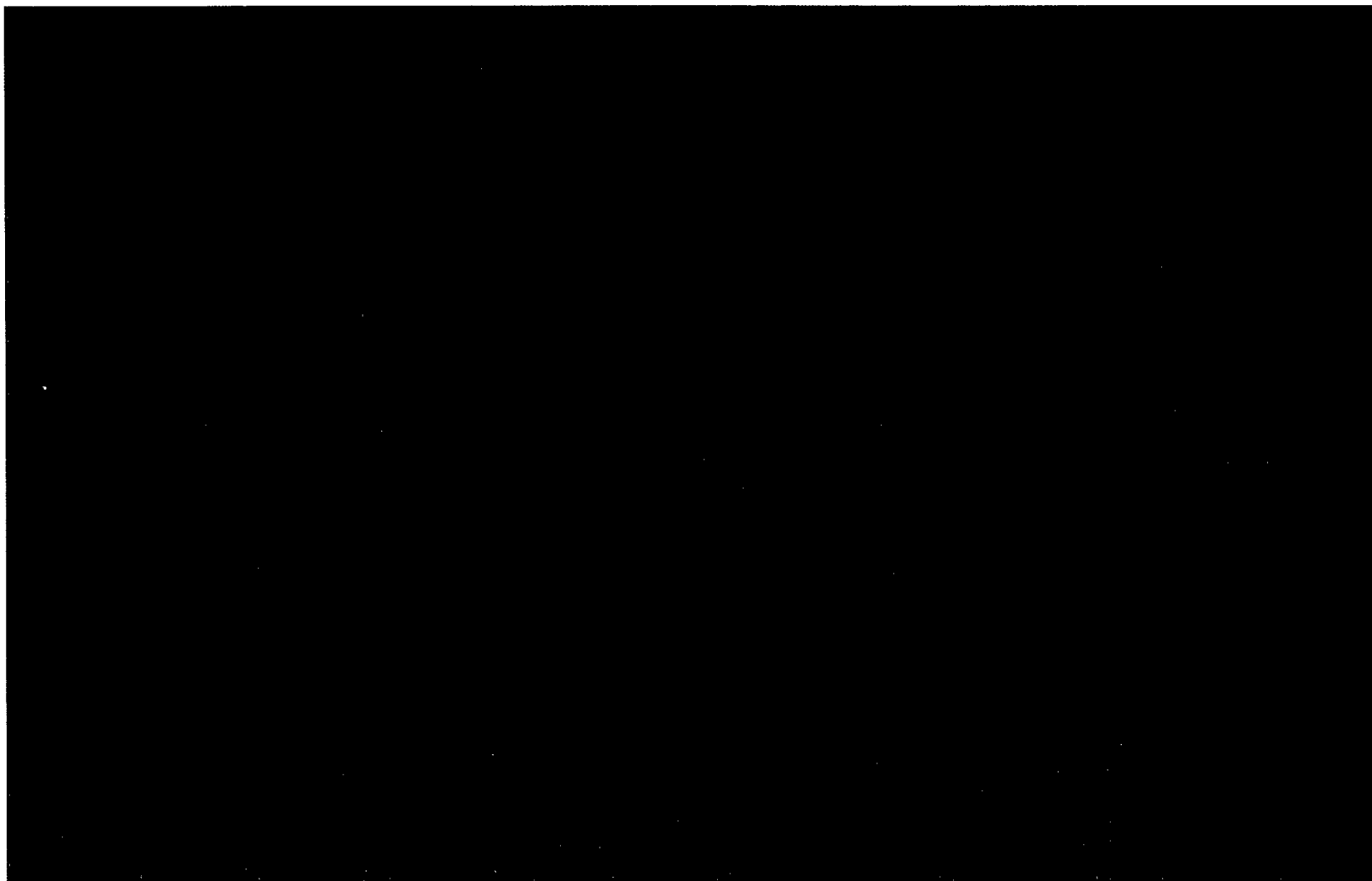


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**APPENDIX C.**

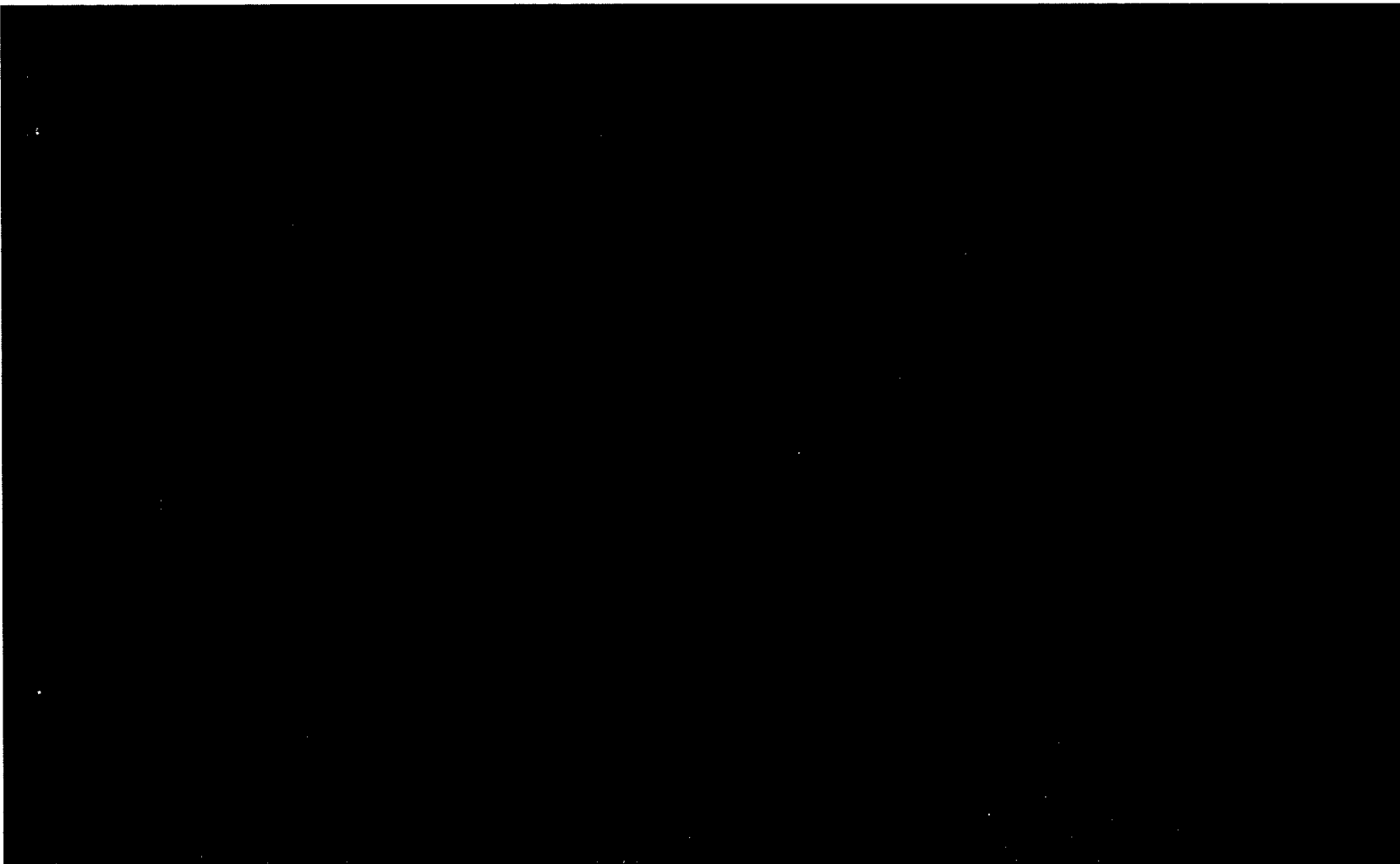
**Samples of CDC Distant Signal Lists Relied Upon by Horowitz Interviewers**

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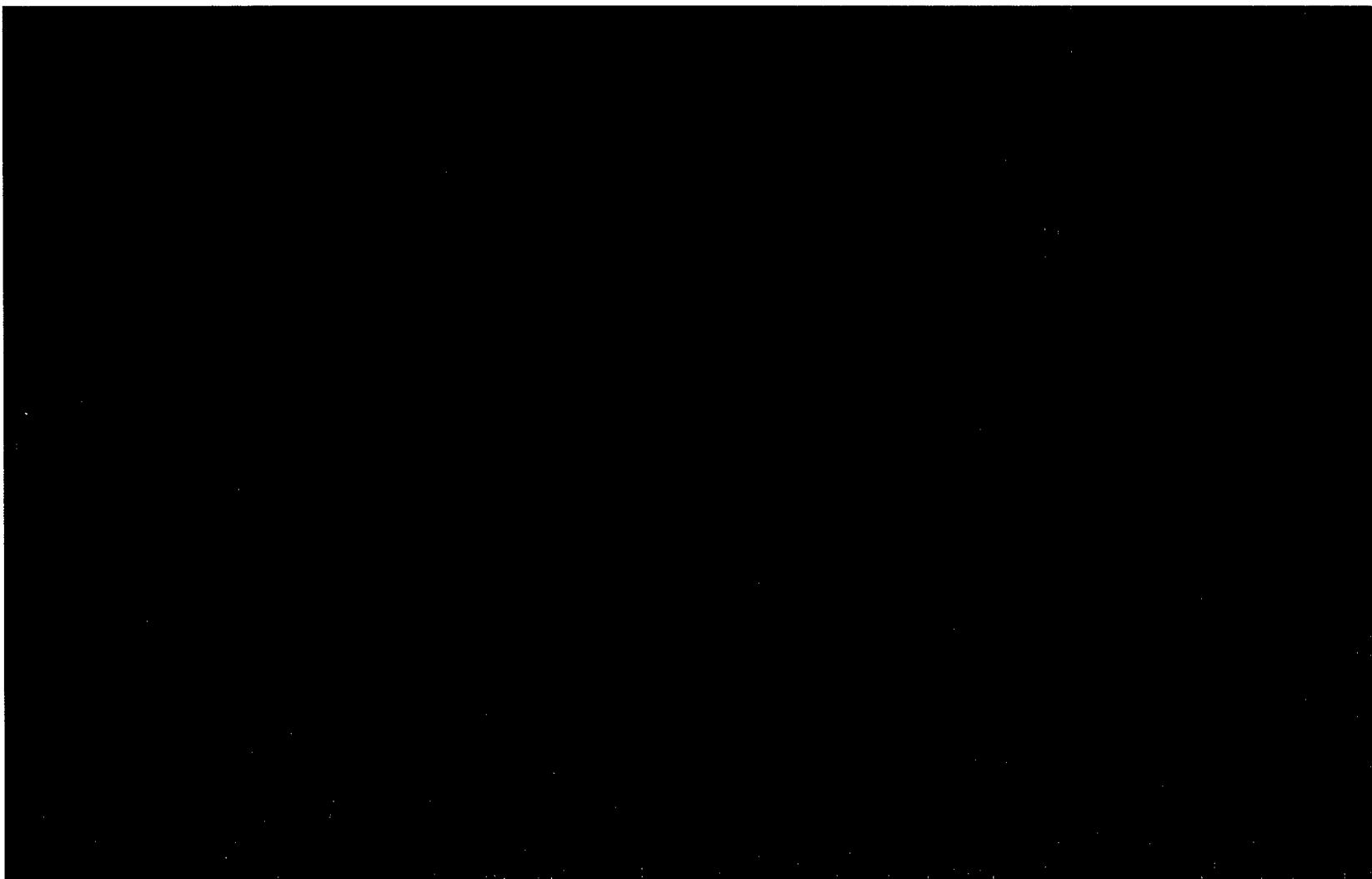
Source: MPAA\_F3\_Study\_Details\_20131\_AllF3wDist\_29April2014.xls.

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Source: MPAA\_F3\_Study\_Details\_20121-Allform3sys\_wDist\_9May2013.xls.

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Source: MPAA\_2011\_1\_F3StudyDetails\_FINAL\_16Apr2012.xlsx.



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Source: MP\_2010-1\_ALLF3sys\_DistantCarriage\_17May11.xlsx.

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**APPENDIX D.**

**Sample of Masked CDC Data Identifying Horowitz Respondents With Exempt PTV Signals**

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[illegible]

**Source:**

APKS MASKEDSAMPLE distant carriage with boc and ds and current ds and stratum boc ExemptSep 2010 2013.xlsx.



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Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.

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*In re*

DISTRIBUTION OF CABLE  
ROYALTY FUNDS

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)  
)  
)  
) NO. 14-CRB-0010-CD (2010-13)  
)  
)

Written Rebuttal Testimony of

DR. MARK A. ISRAEL

September 15, 2017

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## I. QUALIFICATIONS

1. I am a Senior Managing Director of Compass Lexecon, an economic consulting firm where I have worked since 2006. I received my Ph.D. in Economics from Stanford University in 2001. From August 2000 to June 2006, I served as an Associate Professor at Northwestern University's Kellogg School of Management. I have served as an expert for both the federal government and private parties in matters involving the cable television, broadcast television, wired and wireless telecommunications and broadband internet service industries (among others), including high profile recent mergers such as Comcast-NBCU, AT&T-Time Warner, AT&T-Leap Wireless, T-Mobile-Metro PCS, and numerous acquisitions for Gray Television, as well as many regulatory matters in front of the FCC and state regulatory agencies on behalf of cable system operators (CSOs), the National Association of Broadcasters, and others.

2. A more complete description of my qualifications can be found in Appendix A to my written direct testimony in this proceeding on behalf of the Joint Sports Claimants (JSC).<sup>1</sup>

## II. INTRODUCTION AND SUMMARY

3. In my original testimony, I explained that observable marketplace behavior corroborates the results of the 2010-13 Bortz surveys.<sup>2</sup> In particular, my regression analysis—based on an updated and improved version of the methodology used by Professors Rosston and Waldfogel in previous cable royalty distribution proceedings<sup>3</sup>—

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<sup>1</sup> Written Direct Testimony of Dr. Mark A. Israel, *In re Distribution of Cable Royalty Funds*, December 22, 2016, (hereinafter *Israel Testimony*).

<sup>2</sup> “Cable Operator Valuation of Distant Signal Non-Network Programming: 2010-13” (hereinafter *Bortz Report*), attached to the Written Direct Testimony of James M. Trautman, *In re Distribution of Cable Royalty Funds*, December 22, 2016.

<sup>3</sup> Statement of Joel Waldfogel, *In the Matter of Distribution of the 2004 and 2005 Cable Royalty Funds Before the Copyright Royalty Judges*, Docket No. 2007-3 CRB CD 2004-2005, June 1, 2009 (hereinafter *Waldfogel Report*); Statement of Gregory Rosston, *In the Matter of Distribution of the 1998 and 1999 Cable Royalty Funds Before the Copyright Arbitration Royalty Panel*, Docket No. 2001-8 CARP CD 98-99, December 1, 2002 (hereinafter *Rosston Report*).



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produces relative valuations of the Agreed Categories<sup>4</sup> that closely match those in the Bortz surveys. My analysis of payments made by cable networks to carry JSC and other programming during the years 2010-13 further corroborates the high relative valuations for live team sports (Sports) programming found in the Bortz surveys.

4. In this report, I respond to written testimony from other parties in the proceeding.<sup>5</sup> I conclude that the testimony from experts on behalf of other parties, as well as the updated analyses I have performed in response to this testimony, further corroborate the results of the 2010-13 Bortz surveys. I provide a more detailed discussion of my analysis of the testimony of the other experts in the following paragraphs.

5. First, the regression analysis presented by Dr. Gregory Crawford on behalf of Commercial TV Claimants directly supports the 2010-13 Bortz survey results. Indeed, although we conducted our analyses entirely independently of each other, we both came to comparable conclusions that corroborate the Bortz results. Notably, his estimates are similar to mine despite some differences in technical methodological choices (of the type that regularly occur across different regression analyses by different economists).

6. Second, the alternative versions of my model that Dr. Erkan Erdem produced on behalf of Devotional Claimants also support the results of the 2010-13 Bortz surveys. However, Dr. Erdem's criticisms of "Waldfoegel-type" regression analysis in the context of this proceeding generally, and of my regression analysis in particular, are without merit. As the Copyright Royalty Judges (Judges) and the Copyright Arbitration Royalty

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<sup>4</sup> The Copyright Royalty Judges' 11/25/2015 Order, Exhibit A. The Agreed Categories are 1) Program Suppliers, 2) Commercial Television Claimants (CTV), 3) Joint Sports Claimants (Sports), 4) Public Television Claimants (PTV), 5) Devotional Claimants (Devotional), 6) Canadian Claimants (Canadian). See *Israel Testimony* ¶15 for more detail. In addition to these categories, there are the (1) Music Claimants (Music) category, which covers the music works included within broadcast programming and (2) National Public Radio (NPR) category, which covers programming on non-commercial radio stations. I understand that Music and NPR are no longer parties in this proceeding.

<sup>5</sup> I address those opinions for which I have a specific response based on my own analysis; any lack of explicit response to a particular opinion or analysis of Claimants' testimony does not imply that I agree with that opinion or analysis. Instead, it likely implies that my previous testimony and underlying materials are already fully responsive to such opinions and analyses.

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Panel (CARP) previously found, such an analysis is useful in assessing whether the actual economic behavior of CSOs corroborates the Bortz survey results.

7. Third, I agree with Mr. John Sanders' testimony on behalf of Devotional Claimants "that a constant sum survey of cable operators such as that prepared by Bortz is the most appropriate methodology for the Allocation phase of a cable royalty proceeding."<sup>6</sup> However, Mr. Sanders' criticisms of regression analysis in this proceeding are unfounded.

8. Fourth, Dr. Jeffrey Gray's testimony on behalf of Program Suppliers — in which he focuses upon the volume and viewing of minutes of programming — does not provide a sound basis for determining the relative value of that programming. Dr. Gray's analysis of volume is fundamentally flawed in that it fails to consider differences in the number of cable subscribers who receive the programming in question. And his analysis of viewership fails to recognize that CSOs place far greater value per minute on some types of programming (e.g., Sports) than others, as actual marketplace behavior shows. Bottom line, neither program volume nor program viewing can be equated with program value.

9. Fifth, Dr. Steckel's criticisms of the Bortz survey, on behalf of Program Suppliers, are incorrect as a matter of economics. Despite Dr. Steckel's claim to the contrary, surveys of CSO executives provide the best measure of the relative valuation of the Agreed Categories on distant signals, particularly given that in the ordinary course of business those executives must evaluate the relative value of different categories of programming to make programming choices. Moreover, Dr. Steckel advocates the use of marketplace data to determine relative value of the Agreed Categories, which further emphasizes the importance of regression analyses like mine and Dr. Crawford's (among others) that corroborate the Bortz survey results using actual marketplace data.

10. Sixth, Mr. John Mansell's analysis of the growth in available content, submitted on behalf of Program Suppliers, actually underscores the high value placed on Sports

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<sup>6</sup> Amended Direct Testimony of John S. Sanders, *In re Distribution of Cable Royalty Funds*, March 9, 2017 (hereinafter *Sanders Amended Testimony*), p. 29.

programming. In particular, it points to reasons why the value of Sports, relative to other types of programming, is *increasing*, as reflected in a comparison of the 2004-05 and 2010-13 Bortz results. Mr. Mansell overlooks that recent technological changes in the media environment have negatively and disproportionately impacted the value of other types of programming, such as Program Suppliers content, while the value of Sports programming has remained high.

11. Seventh, my regression analysis corroborates the findings of the Bortz surveys, but does not corroborate the Horowitz surveys on behalf of Program Suppliers. In particular, the Bortz surveys, the results of my regression, and Dr. Crawford's regression each show the rank order for the top program categories as Sports, Program Suppliers, CTV and PTV, in that order, while Horowitz surveys do not match this rank order. The fact that the Horowitz survey fails to correspond well to actual marketplace evidence, as captured by the regression analyses, is not surprising given the flaws in the Horowitz methodology laid out in the testimony of Mr. James Trautman and Dr. Nancy Mathiowetz.<sup>7</sup> And notably, the fact that my regression analysis, as well as Dr. Crawford's, correctly allocates the minutes in Mr. Horowitz's "Other Sports" category into the appropriate Agreed Categories, and yet still closely matches the Sports values found in the Bortz survey, refutes Mr. Horowitz's claim that the Bortz survey is somehow invalidated by not using a separate valuation question for "Other Sports" programming.

12. Finally, the testimony of Dr. Lisa George on behalf of Canadian Claimants is flawed. Her finding of a higher value for Canadian Programming comes not from her focus on the Canadian region, but rather from her improper, complete reliance on a model that collapses all types of programming on U.S. signals into a single catch-all category. Once one properly controls for all of the Agreed Categories, Dr. George's model

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<sup>7</sup> See Written Rebuttal Testimony of James M. Trautman, *In re Distribution of Cable Royalty Funds*, September 15, 2017 (hereinafter, *Trautman Rebuttal Testimony*); and Written Rebuttal Testimony of Nancy A. Mathiowetz, *In re Distribution of Cable Royalty Funds*, September 15, 2017 (hereinafter, *Mathiowetz Rebuttal Testimony*).

produces small shares for Canadian Claimants, consistent with the findings of the Bortz surveys.

**III. DR. GREGORY CRAWFORD'S REGRESSION ANALYSIS ON BEHALF OF THE COMMERCIAL TELEVISION CLAIMANTS FURTHER CORROBORATES THE 2010-13 BORTZ SURVEY RESULTS**

13. In his testimony, Dr. Crawford describes the results of his regression analysis, with which he estimates the relative marketplace value of the Agreed Categories.<sup>8</sup> His overall methodological approach is similar to mine, but he uses different data and makes some different econometric implementation decisions. Despite the technical differences between our approaches, Dr. Crawford finds relative marketplace values for the Agreed Categories that are similar to mine, and his results also corroborate the relative shares implied by the Bortz survey, demonstrating the robustness of this finding.

14. The Bortz surveys, my analysis, and Dr. Crawford's analysis each identify Sports programming as the most valuable category of compensable programming, with similar shares in each case. The Bortz surveys estimate a Sports share of 38.2 percent; I find a Sports share of 37.5 percent, and Dr. Crawford finds a Sports share of 35.1 percent. All three analyses estimate that Program Suppliers should receive the second largest share from the royalty fund, and all find similar shares for CTV. See Table 1, below, as well as Figure 1 which illustrates the same sets of results graphically.

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<sup>8</sup> See Corrected Testimony of Gregory S. Crawford, Ph.D. (April 11, 2017) (hereinafter *Crawford Corrected Testimony*).

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**Table 1: Comparison of Israel, Crawford and Bortz Results**

Claimant Group	Implied Share of Royalties		
	Israel	Crawford	Bortz
Sports	37.5%	35.1%	38.2%
Program Suppliers	26.8%	23.4%	31.0%
CTV	22.2%	19.5%	20.6%
PTV	13.5%	17.0%	5.1%
Devotional	0.0%	0.7%	4.6%
Canadian	0.0%	4.2%	0.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.00%</b>

Source: Israel Testimony, December 22, 2016, Table V-2;

Crawford Corrected Testimony, April 11, 2017, Figure 20.

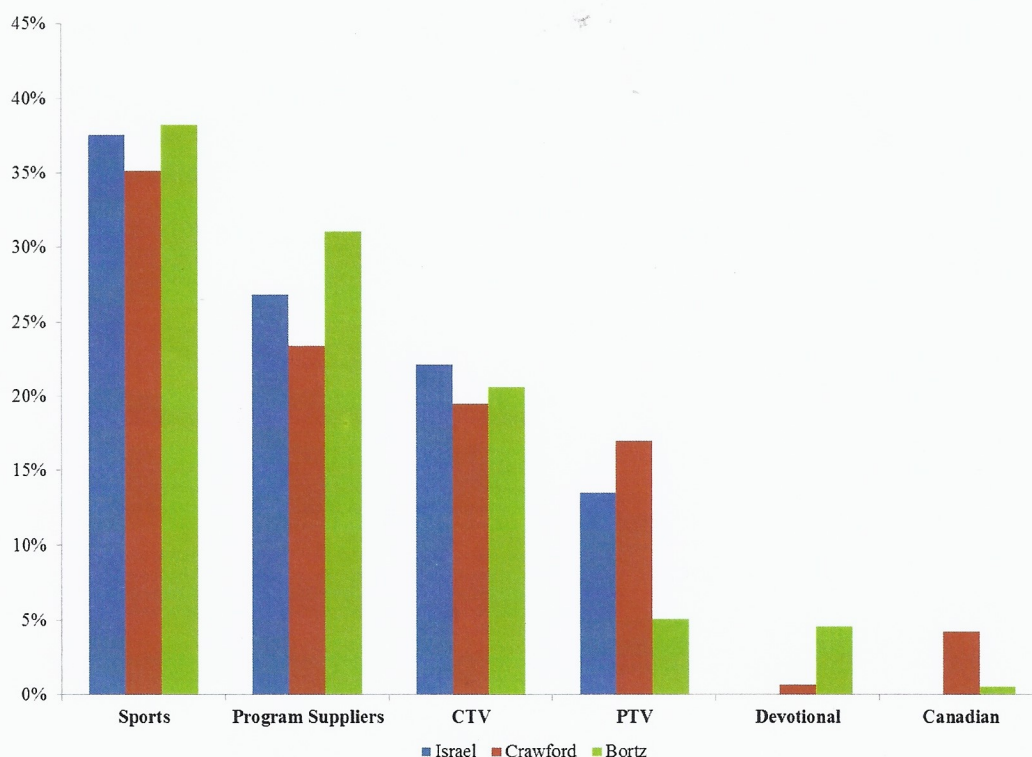
Bortz Report, December 22, 2016, Table I-1.

Notes: Israel analysis spans 2010-2012;

Crawford analysis spans 2010-2013;

Bortz analysis spans 2010-2013.

**Figure 1: Comparison of Israel, Crawford and Bortz Results**



15. One difference between my regression and Dr. Crawford's is that he includes a regression for the year 2013, while my analysis examined the years 2010-12. Notably,

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Dr. Crawford's regression results using 2013 data also closely match the 2013 Bortz survey results, further corroborating the Bortz survey results. And Dr. Crawford's results for 2013 are also similar to my overall results for the years 2010-12, indicating that extending my analysis to include 2013 would not materially alter my findings. Dr. Crawford's 2013 regression implies a royalty share for Sports of approximately 38.6 percent, whereas the Bortz survey for 2013 finds a Sports share of approximately 37.7 percent, and my average result for 2010-12 is 37.54 percent. (See Table 2, below.) Therefore, Dr. Crawford's analysis corroborates the Bortz survey for 2013 and indicates that my focus on the period 2010-12 does not bias my results.<sup>9</sup>

**Table 2: Comparison of Bortz 2013 Results to Crawford 2013 Results**

<b>Claimant Group</b>	<b>2013 Implied Share of Royalties</b>	
	<b>Bortz</b>	<b>Crawford</b>
Sports	37.7%	38.6%
Program Suppliers	27.3%	19.7%
Commercial TV	22.7%	18.4%
Public Broadcasting	6.2%	18.1%
Devotional	5.0%	0.5%
Canadian	1.2%	4.7%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>

Source: Bortz Testimony, December 22, 2016, Table I-1.

Crawford Corrected Testimony, April 11, 2017, Figure 20.

<sup>9</sup> In addition, Dr. Crawford gets his highest implied royalty allocation for Sports in 2013, indicating that if I had included data for 2013 in my regression analysis, it likely would have found an even greater average value for Sports programming.

#### IV. RESPONSES TO OTHER CLAIMANTS' WRITTEN TESTIMONY

**A. DR. ERDEM'S ANALYSIS ON BEHALF OF DEVOTIONAL CLAIMANTS LARGELY CORROBORATES THE BORTZ SURVEY RESULTS, AND HIS CRITICISMS OF THE USE OF REGRESSION ANALYSES IN THIS PROCEEDING ARE WITHOUT MERIT**

**1. Dr. Erdem's challenges to the use of regression analysis in this proceeding are without merit**

16. Although he acknowledges that "Waldfoegel-type" regressions may have some value in corroborating survey evidence,<sup>10</sup> Dr. Erdem criticizes the use of regression analysis in this proceeding on two principal grounds. First, he claims that "regression approaches cannot inform the Judges on what the CSOs would have paid for each claimant category in a free market," because CSOs are purchasing distant signal programming in a regulated market. Second, he claims that the regression approach is not valid because it "assume[s] that the 'value' of a program category is measured in minutes of programming."<sup>11</sup> Both of Dr. Erdem's criticisms are unfounded.

17. **First**, Dr. Erdem is wrong that regression approaches like mine or Dr. Crawford's (or those of Drs. Waldfoegel and Rosston before us) cannot inform the Judges on what CSOs would have paid for each of the Agreed Categories of programming in a hypothetical free market. As I explained in my original testimony in this proceeding, the regression allows me to determine how much more CSOs pay for each additional minute of a given type of content, holding other factors constant, which is exactly the sort of direct evidence on their willingness to pay for each type of content that one needs to corroborate the Bortz survey results using actual marketplace behavior:<sup>12</sup>

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<sup>10</sup> Testimony of Erkan Erdem, Ph.D., *In re Distribution of Cable Royalty Funds*, March 9, 2017 (hereinafter, *Erdem Testimony*), p. 18.

<sup>11</sup> *Erdem Testimony*, p. 14.

<sup>12</sup> See *Israel Testimony*, pp. 11-12. See also *Crawford Corrected Testimony*, p. 13 ("one can exploit the fact that distant broadcast signals are themselves bundles of programming content (and that this content varies across distant signals) to measure their relative marketplace value, even in the presence of regulated prices.")

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Although there is no marketplace price for the distant signal content, marketplace information can be gleaned from CSO carriage decisions and, in particular, what CSOs pay as a function of what they choose to carry. The regression enables me to determine the effective price the CSOs pay for each category of content by determining how much their payments go up with an additional minute of each category of content, holding other relevant factors constant.

18. Dr. Erdem is also mistaken that regression analysis cannot be informative in this context simply because the market is regulated. In past proceedings, the parties have agreed that “the sole governing standard is the relative marketplace value of the distant broadcast signal programming retransmitted by cable systems.”<sup>13</sup> And regression analysis is a highly effective tool in this context to use the actual evidence of CSO decisions on distant signal carriage to estimate the average relative value of the Agreed Categories.

19. Indeed, in the 2004-05 cable royalty proceeding, the Judges found the Waldfogel regression helpful to corroborate the 2004-05 Bortz survey results.<sup>14</sup> Similarly, the Copyright Arbitration Royalty Panel found Dr. Rosston’s regression analysis useful in corroborating the 1998-99 Bortz survey results.<sup>15</sup> Accordingly, I employed a similar regression analysis here to help the Judges assess the 2010-13 Bortz surveys results.

20. My approach is also entirely consistent with standard methods in economics. Indeed an important purpose of much empirical analysis in economics, particularly “industrial organization” economics, is to use observed behavior under one set of conditions to model what would happen under another set of conditions. For example, studies will often use empirical results in the absence of a particular regulation to predict

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<sup>13</sup> Federal Register /Vol. 75, No. 180 / Friday, September 17, 2010. Page 57065.

<sup>14</sup> Federal Register /Vol. 75, No. 180 / Friday, September 17, 2010. Page 57069.

<sup>15</sup> Report of the Copyright Arbitration Royalty Panel to the Librarian of Congress, October 21, 2003, p. 21. As the Librarian of Congress concluded in affirming this decision, regression analysis measures “actual behavior” and responds to past criticism of the Bortz surveys that those surveys measure only “attitudes” rather than “actual behavior.” Federal Register /Vol. 69, No. 16 / Monday, January 26, 2004. Page 3615.



the effects of that regulation, or empirical results in a regulated environment to predict the effects of competition following a change in the extent of regulation.<sup>16</sup>

21. **Second**, Dr. Erdem is also incorrect to characterize my regression analysis as a simple time-based study (that is, a study in which valuation is determined only by minutes). I agree with Dr. Erdem that “it would be a significant simplification and mistake to assume that the ‘value’ of a program category is measured in minutes of programming.”<sup>17</sup> In fact, that is why, in all of my analyses, I account for the fact that not all programming minutes are created equal, and thus do not assume value is measured in minutes, but rather account for the differential value of minutes of different types of programming. For example, I consistently find and rely on the fact that Sports minutes are more valuable than other types of programming minutes.<sup>18</sup>

22. Dr. Erdem does not offer a clear alternative to studying the relationship of minutes and royalties, but does offer one specific criticism: that minutes of programming could be replaced by the number of individual programs as a unit of measure, meaning that a 60 minute show or a 30 minute show would each be counted as one unit.<sup>19</sup> This makes no economic sense. The exercise here requires a comparison of the value of different types of programming with different lengths. A baseball game may last three hours, as long as several standard TV shows. Hence, a viewer watching a baseball game could have instead watched, say, six sitcoms in the same period of time. It would make no sense to count each of the programs as one unit, but rather makes sense to determine the value of two possibilities for three hours’ worth of content.

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<sup>16</sup> See for example Mian Dai and Xun Tang, “Regulation and Capacity Competition in Health Care: Evidence From U.S. Dialysis Markets,” *The Review of Economics and Statistics*, December 2015, 97(5): 965–982; Pierre Dubois, Rachel Griffith, Martin O’Connell, “The Effects of Banning Advertising in Junk Food Markets,” *Review of Economic Studies* (2017) 0, 1–41; Claudio Lucarelli, Jeffrey Prince, Kosali Simon, “The Welfare Impact of Reducing Choice in Medicare Part D: A Comparison of Two Regulation Strategies,” *International Economic Review* Vol. 53, No. 4, November 2012.

<sup>17</sup> *Erdem Testimony*, p. 14.

<sup>18</sup> *Israel Testimony*, pp. 23-30.

<sup>19</sup> *Erdem Testimony*, p. 14.

23. Dr. Erdem's claim that "CSOs may value a short program (e.g., 30-minutes) more than they value a longer program (e.g., 90-minutes) or that they may value a weekly program more than a daily program" does nothing to refute my point that one should compare value by minute.<sup>20</sup> If a 30-minute program is worth more than a 90-minute program, a CSO would surely choose (if possible given other constraints) to replace the 90-minute program with the 30-minute program. But it would also then have an additional 60 free minutes on which to air other valuable content. Only by comparing programming values by minute, as I do in my regression analysis, can one accurately compare the full value of two blocks of content that could fill a given time span.

## **2. Dr. Erdem's testimony supports a high relative value for Sports programming**

24. Dr. Erdem performs several experiments on my regression model.<sup>21</sup> Although I believe that the methodology used in my regression was appropriate and Dr. Erdem's adjustments are unwarranted,<sup>22</sup> I also note that Dr. Erdem's alternative approaches *actually support* my finding of a high relative value on live Sports programming. In particular, Dr. Erdem's model 4B, which he notes is "very broadly comparable to the

<sup>20</sup> *Erdem Testimony*, p. 14.

<sup>21</sup> *Erdem Testimony*, p. 14.

<sup>22</sup> There are at least three fundamental problems with Dr. Erdem's experiments, each of which renders them econometrically invalid. First, Dr. Erdem misunderstands the nature of the CDC data, and his calculation of "distant subscribers" double-counts subscribers, and thus results that include this measure are not informative. Second, Dr. Erdem's addition of log transformed and exponential versions of level variables that I already include in my regression model is not standard practice, and I have never seen it used before. Instead, it is an example of simply "fishing" for a specification that changes my result – throwing variables into a model until the result changes. One can nearly always find a way to change a result, but if this is done by simply adding multiple versions of the same variable to the model with no economic justification, it is not informative and cannot invalidate the result. Third, Dr. Erdem is wrong to exclude what he calls "influential observations" in my regression model. The purpose of this regression analysis is to study the relationship established by the full set of data, representing all Form 3 CSOs. Indeed even the authors Dr. Erdem cites for this statistical practice, themselves state "influential data points, of course, are not necessarily bad data points; they may contain some of the most interesting sample information." [Emphasis added.] See Belsley, D. E. Kuh, and R. E. Welsch, 1980. *Regression Diagnostics: Identifying Influential Data and Sources of Collinearity*. New York: Wiley, p. 3.

results from both the Bortz and Horowitz surveys<sup>23</sup> and which Mr. Sanders highlights in his testimony,<sup>24</sup> implies a 45 percent share for Sports programming. In addition, the average of Dr. Erdem's various regression models imply a 41.5 percent share of the royalty fund for Sports programming. Both of these results are similar to (indeed higher than) the average result of the 2010-13 Bortz surveys (38.2 percent), and generally in-line with my results and Dr. Crawford's results.

25. More generally, Dr. Erdem's results are broadly consistent with the valuations in the 2010-13 Bortz surveys, showing, for example, the same rank order for Sports, Program Suppliers, CTV and Public Television ("PTV"). (See Table 3.)

**Table 3: Comparison of Erdem Regression Results with Bortz, Israel and Crawford**

<b>Programming Category</b>	<b>Bortz Survey Average 2010-2013</b>	<b>Israel Regression 2010-2012</b>	<b>Crawford Regression 2010-2013</b>	<b>Erdem Regression 4B 2010-2012</b>	<b>Erdem Regression Average 2010-2012</b>
Sports	38.2%	37.5%	35.1%	45.0%	41.5%
Program Suppliers	31.0%	26.8%	23.4%	22.6%	22.4%
CTV	20.6%	22.2%	19.5%	21.6%	16.3%
PTV	5.1%	13.5%	17.0%	7.0%	7.1%
Devotional	4.6%	0.0%	0.7%	3.8%	2.7%
Canadian	0.5%	0.0%	4.2%	0.0%	0.0%

Source: Israel Testimony, December 22, 2016, Table V-2; Crawford Corrected Testimony, April 11, 2017, Figure 20; Bortz Report, December 22, 2016, Table I-1; Erdem Testimony, March 9, 2017, Exhibit 13

<sup>23</sup> *Erdem Testimony*, p. 18.

<sup>24</sup> *Sanders Amended Testimony*, p. 18.

**B. MR. SANDERS' TESTIMONY ON BEHALF OF DEVOTIONAL CLAIMANTS SUPPORTS THE USE OF THE 2010-13 BORTZ SURVEYS TO DETERMINE ROYALTY SHARES, AND HIS CRITICISMS OF THE REGRESSION ANALYSES IN THIS PROCEEDING ARE WITHOUT MERIT**

**1. Mr. Sanders correctly concludes that the 2010-13 Bortz survey results should be the basis for determining each program category's royalty share**

26. I agree with Mr. Sanders that the 2010-13 Bortz surveys should be the basis for the Judges' allocation of royalty shares among the Agreed Categories of programming.<sup>25</sup> As noted above, my empirical analysis of marketplace outcomes supports the results of the Bortz surveys for royalty allocation. As such, I support the results of the 2010-13 Bortz surveys for the royalty allocation to all parties, including Devotional Claimants.

27. However, I also note that the Judges' prior adjustment of the Devotional Claimants' share was based in part on a conclusion that the 2004-05 Bortz survey results likely represented a ceiling on the Devotional share due to "the amount and significance of non-compensable devotional programming contained on WGN-A during the period."<sup>26</sup> The 2010-13 Bortz surveys included improvements that mitigate (but do not eliminate) the impact of WGNA non-compensability,<sup>27</sup> and hence, using the same logic, the 2010-13 Bortz survey results should be regarded as a ceiling on the Devotional allocation of the 2010-13 royalties. Additionally, the results of my regression and Dr. Crawford's, like those of Dr. Waldfogel in the 2004-05 proceeding, "point[] toward a lower share" for the Devotional category than the Bortz surveys imply.<sup>28</sup>

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<sup>25</sup> *Sanders Amended Testimony*, p. 9. ("I believe the Bortz Survey, as structured in the 2004-2005 case and as updated for this 2010-2013 proceeding, identifies the appropriate buyers of retransmission services and presents this category of buyers' views of the relative marketplace value of specific categories of programs.")

<sup>26</sup> Federal Register /Vol. 75, No. 180 / Friday, September 17, 2010. Page 57074.

<sup>27</sup> *Bortz Report*, pp. 5-7, 18-19, 27-30, 47-49.

<sup>28</sup> Federal Register /Vol. 75, No. 180 / Friday, September 17, 2010. Page 57069.

**2. Mr. Sanders' criticisms of regression analyses in this proceeding are incorrect**

28. Mr. Sanders is incorrect in asserting that regression analysis is an inappropriate methodology for this proceeding. In general, his arguments echo Dr. Erdem's criticisms and are incorrect for the same reasons discussed above.

29. Mr. Sanders also takes issue with the use of "independent variables such as numbers of subscribers, number of channels, population served, and the like, which bear a relationship to programming decisions that is tangential at best.... They may yield a result that, while statistically compelling in an illusory manner, is meaningless for the purpose of an allocation phase royalty distribution."<sup>29</sup> Mr. Sander's argument makes no sense as a matter of econometrics. Such variables are also referred to as "control variables" and are a standard component of a regression analysis, used to ensure that my results isolate the effects of additional minutes of programming on CSO payments without instead capturing spurious correlation with other factors that are not controlled for. By using such control variables, my regression analysis is able to tease out the amount that "CSO royalty payments increase with each additional minute of each category of programming content, *holding other relevant factors that determine royalty payments fixed*[.]"<sup>30</sup>

30. I also note that the control variables that I use in my regression are essentially those used by Drs. Waldfogel and Rosston in previous proceedings, and are similar to those used by Dr. Crawford. The reason we have all used such control variables is that they clearly relate to the amount of royalties that CSOs pay for distant signals, and thereby serve as important controls to isolate the main relationship of interest: the relative marketplace value of a minute of the Agreed Categories of programming.<sup>31</sup>

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<sup>29</sup> Sanders Amended Testimony, pp. 19-20.

<sup>30</sup> See Israel Testimony, paragraph 34. (Emphasis added)

<sup>31</sup> For example, CSO royalties are, in part, a function of the number of CSO subscribers. CSOs pay royalties to the fund based on their gross receipts from the subscribers to whom they transmit distant signals. Therefore, my regression must include a control variable that measures the number of subscribers for each CSO. Other independent

**C. DR. GRAY'S TESTIMONY ON BEHALF OF PROGRAM SUPPLIERS RELIES ON  
FUNDAMENTALLY FLAWED MEASURES OF PROGRAMMING VOLUME AND  
VIEWERSHIP THAT PROVIDE NO VALID ECONOMIC BASIS FOR  
DETERMINING RELATIVE MARKETPLACE VALUE**

31. Dr. Gray's testimony focuses on "two measures of relative economic value of programming: programming volume and programming viewership."<sup>32</sup> For the purposes of his testimony, programming volume is the "total volume of minutes of programming retransmitted by CSOs" and viewership is the "[a]udience size, which is determined through program viewership."<sup>33</sup> Although he presents and discusses results on programming volume, Dr. Gray ultimately concludes that programming volume is an "imperfect" and "insufficient" measure of relative marketplace value.<sup>34</sup> But as to his viewership measure, he concludes that "... relative program viewership provides a reasonable and reliable measure of the relative economic value of distantly retransmitted programming."<sup>35</sup>

32. Dr. Gray's conclusions are without any economic merit. Neither of Dr. Gray's metrics – volume or viewing – provides a sound measure of the relative economic value of the Agreed Categories.

- His measures of programming volume are meaningless, as they do not account for the number of CSOs that transmit each network, let alone the number of CSO subscribers receiving programming, and thus do not show the extent to which CSOs are retransmitting (purchasing) that programming. In any event, as Dr.

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variables, such as the number of local broadcast channels a CSO carries, help me to control for demand factors that might affect a CSO's willingness to pay for additional programming – if a CSO already has an abundance of non-distant broadcast signals, it will be less willing to pay for distant signals, all else equal. This relationship is confirmed in my analysis. See *Israel Testimony*, Table V-1, p. 18, showing a negative relationship between the number of local broadcast channels carried by a CSO and the distant signal royalties paid by that CSO, holding all other factors constant.

<sup>32</sup> Corrected Amended Testimony of Jeffrey S. Gray, Ph.D., *In re Distribution of Cable Royalty Funds*, April 3, 2017, (hereinafter, *Gray Corrected Amended Testimony*), p. 8.

<sup>33</sup> *Gray Corrected Amended Testimony*, p. 9.

<sup>34</sup> *Gray Corrected Amended Testimony*, pp. 9, 17.

<sup>35</sup> *Gray Corrected Amended Testimony*, p. 20.

Gray appears to acknowledge, relative volume does not equate with relative value.

- His reliance on programming viewership as a measure of relative economic value ignores the fact that not all programming minutes are equal: Viewers value minutes of different content differently, as I (and others) have shown for the Agreed Categories in this case. As such, viewership minutes do not determine the value of programming aired on distant signals. Rather, valid estimates of royalty shares in this proceeding must account for variation in the value per minute across categories. The Bortz surveys provide a reliable measure of these valuations, as my and Dr. Crawford's regression analyses confirm.

**1. Dr. Gray's analysis of programming volume is incorrect and does not reflect relative marketplace value**

33. Dr. Gray calculates what he calls "relative volume of programming by claimant category," which he admits is an "imperfect" measure of relative marketplace valuations.<sup>36</sup> According to Dr. Gray, the "total volume of minutes of programming *retransmitted* by CSOs effectively represents the volume of programming purchased by the CSOs . . . ."<sup>37</sup> He purports to calculate that volume by measuring the number of distant signal programs and minutes of those programs based on his sample of television stations retransmitted during 2010-13. In Table 1 of his testimony, Dr. Gray reports shares of "All Volume" for each of the Agreed Categories, which show a Sports share of less than 1 percent for each year from 2010 -13 and a Program Suppliers share of approximately 50 percent.<sup>38</sup>

34. Beyond his own admission that volume is an imperfect measure of valuation, Dr. Gray's Table 1 is flawed and misleading, because it does not account for the number of CSOs that receive each distant signal, let alone the number of subscribers to whom the

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<sup>36</sup> See *Gray Corrected Amended Testimony*, pp. 11, 15-17.

<sup>37</sup> See *Gray Corrected Amended Testimony*, p. 9 (emphasis added).

<sup>38</sup> See *Gray Corrected Amended Testimony*, pp. 15-17.

programming is retransmitted. Thus, it does not measure the “total volume of minutes retransmitted” by CSOs, as Dr. Gray claims. Instead, Dr. Gray measures the volume of minutes televised by distant signals without regard to the number of CSOs that retransmitted those minutes or to the number of distant subscribers to whom CSOs retransmitted those minutes. Dr. Gray’s analysis weights the minutes by a sampling weight, which is unrelated to the number of CSOs that retransmit the signal.<sup>39</sup>

35. Hence, Dr. Gray’s volume analysis is unrelated to how many (or few) CSOs retransmitted that programming or how many (or few) CSOs’ subscribers received it. As a result, a 120 minute movie broadcast on a single station retransmitted to 500 distant subscribers could be given equal weight to a 120 minute NBA telecast on WGNA, which hundreds of CSOs retransmitted to over 40 million distant subscribers.<sup>40</sup> Therefore, Dr. Gray’s measure of volume does not properly account for the fact that distant signals are retransmitted by various CSOs to subscribers.<sup>41</sup>

36. Dr. Crawford has presented an analysis that demonstrates the large impact of Dr. Gray’s errors. In particular, Dr. Crawford’s Figure 12 accounts for both the number of CSOs that transmit a distant signal and the number of subscribers receiving it, yielding a subscriber-weighted share of compensable minutes for Sports of roughly 5.9 percent, as compared to Dr. Gray’s figure of a less than 1 percent Sports share. See Table 4, below.

<sup>39</sup> Dr. Gray’s sampling weights simply adjust for the sampling procedure he has implemented and have nothing to do with the number of CSOs who retransmit the signal or the number of subscribers who receive it. For example, his sampling weight has a correlation of -0.07 with the number of distant subscribers who receive the signal (or the number of CSOs that retransmit the signal), implying that the two phenomenon are statistically unrelated. Indeed, a version of Dr. Gray’s Table 1 that is unweighted looks very similar to Dr. Gray’s own results in Table 1. See my Technical Appendix for details.

<sup>40</sup> This flaw is highly consequential and not simply theoretical. As I noted in my original testimony, some distant signals are carried by many more cable systems than others. For example, during the period 2010-12, WGN was carried in 4,127 system-periods, whereas WIAT is carried in only 10 system-periods. See *Israel Testimony*, p. Appendix B-5.

<sup>41</sup> See Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. by William E. Wecker, Ph.D. and R. Garrison Harvey, *In re Distribution of Cable Royalty Funds*, September 15, 2017 (hereinafter, *Wecker Testimony*), pp. 4-10.



Table 4: Comparison of Gray and Crawford Measures of Volume

Claimant Group	2010-2013	2010-2013
	Gray	Crawford
Sports	0.6%	5.9%
Program Suppliers	48.3%	33.3%
CTV	14.4%	15.6%
PTV	27.8%	36.3%
Devotional	7.8%	2.3%
Canadian	1.1%	6.6%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>

Source: Crawford Corrected Testimony, April 11, 2017, Figure 12.

Gray Corrected Amended Testimony, April 3, 2017, Table 1.

37. I also note that the Sports share of program minutes actually received by subscribers (volume) appears to be going *up* over time, indicating that if volume of minutes has any probative value for shares of the royalty fund, the Sports share is going up over time. A calculation similar to Dr. Crawford's was performed for the 2004-05 proceeding by Dr. Richard Ducey on behalf of CTV claimants.<sup>42</sup> In Table 5, below, I compare the subscriber weighted shares of compensable minutes calculated in 2004-05 by Dr. Ducey to those calculated in 2010-13 by Dr. Crawford. I note that Sports share has increased slightly from 4.5 percent to 5.9 percent. However, Program Suppliers' share has decreased from 50.1 percent to 33.3 percent.

<sup>42</sup> Testimony of Richard V. Ducey., *In re Distribution of Cable Royalty Funds*, June 1, 2009, (hereinafter, *Ducey Testimony*), Exhibit 8.

**Table 5: Share of Compensable Minutes by Claimant Group Weighted by Subscribers**

<b>Claimant Group</b>	<b>2004-2005</b>	<b>2010-2013</b>
	<b>Ducey</b>	<b>Crawford</b>
Sports	4.5%	5.9%
Program Suppliers	50.1%	33.3%
CTV	15.5%	15.6%
PTV	22.3%	36.3%
Devotional	2.7%	2.3%
Canadian	4.5%	6.6%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>

Source: Crawford Corrected Testimony, April 11, 2017, Figure 12.  
Ducey Testimony, June 1, 2009, Exhibit 8.

38. My analysis of cable network program expenditures also shows that measures of volume do not translate directly into value. Below I reproduce Table V-5 from my December 22, 2016 testimony (see Table 6).<sup>43</sup> This analysis shows that despite the relatively small share of JSC programming hours transmitted (1.06 percent) by the top 25 cable networks during 2010-13, that programming nevertheless commanded more than 22 percent of the top 25 cable networks' 2010-13 programming budgets. Said another way, JSC programming is worth almost 30 times more per programming hour than non-JSC programming for the top 25 cable networks in 2010-13.

<sup>43</sup> See *Israel Testimony*, pp. 25-26.

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Table 6: Cable Content Analysis 2010-13, Summary of Top 25 Networks

Category	Total Programming Hours	Total HHVH (000)	Expenditures (\$M)	Expenditures per Hour of Programming	Expenditures per Hour of Viewing
	[A]	[B]	[C]	[D] = [C] / [A]	[E] = [C] / [B]
JSC	9,274.0	15,164,368.9	\$12,524.7	\$1,350,513.0	\$0.826
Non-JSC	866,726.0	496,492,970.2	\$42,702.0	\$49,268.2	\$0.086
JSC / Non-JSC	0.01	0.03	0.29	27.41	9.60
JSC % of Total	1.06%	2.96%	22.68%		

Sources: Economics of Basic Cable 2015; various articles from Sports Media Watch, Sports Business Daily, ESPN Media Zone, TV By the Numbers, Soccer America, NY Times, USA Today, WSJ, Morgan Wick, and other various sources. See my underlying documents for a full list of sources.

39. Individual cable networks with a mix of JSC and other programming show a similar pattern. Below, I reproduce table V-6 from my December 22, 2016 testimony (see Table 7), an analysis of content expenditures for TBS and TNT. This analysis shows that JSC's relatively small share of Total Programming Hours on TBS (1.95%) and TNT (2.79%) translates into a 44.40 percent and 45.46 percent share, respectively, of the amount that the cable networks spent on programming. In other words, an hour of JSC programming commands more than 40 times the value of an hour of non-JSC programming on TBS, and nearly 30 times the value of non-JSC programming on TNT.

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Table 7: Cable Content Analysis 2010-13, TBS & TNT

Network	Category	Total Programming Hours	Total HHVH (000)	Expenditures (\$M)	Expenditures per Hour of Programming	Expenditures per Hour of Viewing
		[A]	[B]	[C]	[D] = [C] / [A]	[E] = [C] / [B]
TBS	JSC	684.0	1,220,722.6	\$1,031.0	\$1,507,370.6	\$0.845
	Non-JSC	34,356.0	20,880,757.4	\$1,291.2	\$37,581.7	\$0.062
	JSC / Non-JSC	0.02	0.06	0.80	40.11	13.66
	JSC % of Total	1.95%	5.52%	44.40%		
TNT	JSC	977.0	2,513,281.9	\$2,042.0	\$2,090,056.2	\$0.812
	Non-JSC	34,063.0	29,162,878.1	\$2,450.2	\$71,931.9	\$0.084
	JSC / Non-JSC	0.03	0.09	0.83	29.06	9.67
	JSC % of Total	2.79%	7.93%	45.46%		

Sources: Economics of Basic Cable 2015; various articles from Sports Media Watch, Sports Business Daily, ESPN Media Zone, TV By the Numbers, Soccer America, NY Times, USA Today, WSJ, Morgan Wick, and other various sources. See my underlying documents for a full list of sources.

40. In sum, simply correcting Dr. Gray's error of failing to account for how many CSOs retransmitted programming (and how many subscribers they have), significantly changes his results. Importantly, however, even with this change, one could not rely on the volume of minutes received by subscribers to determine relative valuations of the Agreed Categories without accounting for the differences in the value of each minute, a topic I discuss in greater depth in the next section in the context of viewership minutes.

**2. Dr. Gray's analysis of program viewership provides no valid method for determining relative marketplace value**

41. Dr. Gray also calculates the total amount of what he terms "viewing" of the Agreed Categories of programming on distant signals. In his Table 2, Dr. Gray calculates that live Sports programming constitutes roughly 2.1 to 4.8 percent of 2010-13 distant viewing.<sup>44</sup>

<sup>44</sup> See *Gray Corrected Amended Testimony*, pp. 19-20. See also Wecker Testimony, p. 27, and Written Rebuttal Testimony of Susan Nathan *In re Distribution of Cable Royalty Funds*, September 15, 2017 (hereinafter, *Nathan Rebuttal Testimony*), p. 3.

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42. Dr. Gray's calculation of minutes viewed provides no reliable basis for determining the relative valuation of the Agreed Categories, most fundamentally because it treats all viewing minutes as the same and thus does not account for the fact that minutes of different types of programming have different values. Dr. Gray's assumption that minutes viewed can be treated equally in determining value is flawed for many reasons, most notably that it fails to consider the number of minutes of each type of content that is available. If the same number of minutes of all types of content were available, then the total amount of each that viewers choose to consume could indicate their relative value. But given the smaller number of available minutes of Sports programming, one cannot support such a conclusion. Many viewers may wish there were more Sports programming available, and choose to watch other programming *only as a second choice* because Sports programming is not available at certain times. In that context, a smaller number of minutes of Sports programming may be worth far more to viewers than a much greater number of other types of programming, which they value less but watch as a poor substitute when live Sports is not on.<sup>45</sup>

43. A further problem with Dr. Gray's analysis of viewing minutes is that it ignores that it is CSOs (not viewers) that pay for programming, using such programming to fill out their channel lineups. Hence, the appropriate base for analysis of value is the number of minutes aired by CSOs (accounting for the proportion of its subscribers that receive the programming) such as I use in my regression analysis.

44. My regression methodology accounts for these issues by determining the difference in valuation across minutes of different types of programming and multiplying this by minutes aired by CSOs to determine relative values. Most notably, as described in my previous written testimony, my regressions show that a minute of Sports programming is more valuable than a minute of Program Suppliers programming. Below

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<sup>45</sup> As an analogy, consider that potatoes are much less expensive and more widely available than are blueberries. In 2013, U.S. consumers consumed over 33 pounds per person of fresh potatoes, compared with roughly one and a half pounds of fresh blueberries per person. But the price of blueberries (\$4.73) was roughly 8x greater than potatoes (\$0.56), per pound. Therefore, one cannot conclude that higher consumption equals higher value.

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I reproduce Table V-2 from my testimony of December 22, 2016 (see Table 8).<sup>46</sup> It shows that an additional minute of Program Suppliers programming is much less valuable (\$0.469) than an additional minute of Sports programming (\$4.836). Hence, the fact that CSOs carry many more prorated distant signal minutes of Program Suppliers programming (51,261,616) than they do of Sports programming (6,962,722) cannot be used to infer that they place more value on Program Supplier programming than they do on Sports programming; an adjustment for the value of each type of content per minute is required, such as I provide in my analysis.

**Table 8: Previous Israel Table V-2, Royalty Share Allocation**

<b>Claimant Group</b>	<b>Value of an Additional Minute<sup>1</sup></b>	<b>System and Prorated DSE Weighted Compensable Minutes</b>	<b>Value of Minutes</b>	<b>Implied Share of Royalties</b>
[A]	[B]	[C]	[D] = [B] * [C]	[E] = [D] / (89,701,903)
Sports	4.836**	6,962,722	33,674,484	37.54%
Program Suppliers	0.469***	51,261,616	24,058,506	26.82%
Commercial TV	1.01***	19,677,607	19,873,956	22.16%
Public Broadcasting	0.66**	18,322,702	12,094,957	13.48%
Devotional	-0.701***	4,384,240	0	0.00%
Canadian	-0.973***	4,839,825	0	0.00%
<b>Total</b>		<b>105,448,713</b>	<b>89,701,903</b>	<b>100.00%</b>

Source: TMS/Gracenote; Cable Data Corporation; Kantar Media/SRDS

Notes: \*, \*\*, and \*\*\* indicate results are significant at the 90, 95, and 99 percent confidence levels, respectively.

<sup>1</sup> Minutes prorated.

45. Returning to my analysis of cable network expenditures, it shows that measures of viewership also do not translate directly into value. Below I reproduce Table V-5 from my December 22, 2016 testimony (see Table 9).<sup>47</sup> This analysis shows that despite JSC's relatively small share of household viewing hours (HHVH, 2.96 percent) for the top 25 cable networks, JSC programming nevertheless commands more than 20 percent of the top 25 cable networks' programming budgets. Said another way, JSC programming is

<sup>46</sup> See *Israel Testimony*, p. 20.

<sup>47</sup> See *Israel Testimony*, pp. 25-26.

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worth roughly 10 times more per household viewing hour than non-JSC programming for the top 25 cable networks.

Table 9: Cable Content Analysis 2010-13, Summary of Top 25 Networks

Category	Total Programming Hours	Total HHVH (000)	Expenditures (\$M)	Expenditures per Hour of Programming	Expenditures per Hour of Viewing
	[A]	[B]	[C]	[D] = [C] / [A]	[E] = [C] / [B]
JSC	9,274.0	15,164,368.9	\$12,524.7	\$1,350,513.0	\$0.826
Non-JSC	866,726.0	496,492,970.2	\$42,702.0	\$49,268.2	\$0.086
JSC / Non-JSC	0.01	0.03	0.29	27.41	9.60
JSC % of Total	1.06%	2.96%	22.68%		

Sources: Economics of Basic Cable 2015; various articles from Sports Media Watch, Sports Business Daily, ESPN Media Zone, TV By the Numbers, Soccer America, NY Times, USA Today, WSJ, Morgan Wick, and other various sources. See my underlying documents for a full list of sources.

46. Focusing again on the individual cable channels, TBS and TNT, which show a mix of JSC and non-JSC programming, exhibit the same relationship between household viewing hours and value (See Table 10, below). Specifically, although JSC programming represents only 5.52 percent of HHVH on TBS and 7.93 percent of HHVH on TNT, that programming represents 44.40 percent and 45.46 percent of program expenditures, respectively. This means that the value of an hour of JSC viewing is worth roughly 13 times more than a viewing hour of non-JSC programming on TBS, and nearly 10 times more than a viewing hour of non-JSC programming on TNT.

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Table 10: Cable Content Analysis 2010-13, TBS & TNT

Network	Category	Total Programming Hours	Total HHVH (000)	Expenditures (\$M)	Expenditures per Hour of Programming	Expenditures per Hour of Viewing
		[A]	[B]	[C]	[D] = [C] / [A]	[E] = [C] / [B]
TBS	JSC	684.0	1,220,722.6	\$1,031.0	\$1,507,370.6	\$0.845
	Non-JSC	34,356.0	20,880,757.4	\$1,291.2	\$37,581.7	\$0.062
	JSC / Non-JSC	0.02	0.06	0.80	40.11	13.66
	JSC % of Total	1.95%	5.52%	44.40%		
TNT	JSC	977.0	2,513,281.9	\$2,042.0	\$2,090,056.2	\$0.812
	Non-JSC	34,063.0	29,162,878.1	\$2,450.2	\$71,931.9	\$0.084
	JSC / Non-JSC	0.03	0.09	0.83	29.06	9.67
	JSC % of Total	2.79%	7.93%	45.46%		

Sources: Economics of Basic Cable 2015; various articles from Sports Media Watch, Sports Business Daily,

ESPN Media Zone, TV By the Numbers, Soccer America, NY Times, USA Today, WSJ, Morgan Wick, and other various sources. See my underlying documents for a full list of sources.

47. In sum, Dr. Gray is wrong to focus solely on volume and viewership to estimate relative marketplace value for the Agreed Categories. His measure of volume is simply incorrect and neither measure accounts for the obvious fact that not all minutes are equally valuable. Proper measures must account for the variation in value across minutes of different types, either by directly asking CSOs to report on the value of the programming (as the Bortz survey does), by using a regression analysis to determine value per minute which can then be multiplied by total minutes (as my first method does),<sup>48</sup> or by relying on the values paid for Sports and non-Sports programming on cable channels (as my second method does).

**D. DR. STECKEL'S TESTIMONY ON BEHALF OF PROGRAM SUPPLIERS IS NOT VALID ECONOMIC ANALYSIS**

48. Dr. Steckel claims that CSO surveys, like those performed by Bortz on behalf of Sports programming and Mr. Horowitz on behalf of Program Suppliers, are not appropriate sources of information for the Judges to use in determining the relative

<sup>48</sup> As does the regression analysis by Dr. Crawford for Commercial TV Claimants.



marketplace value of the Agreed Categories.<sup>49</sup> He offers several reasons for this opinion and, based on those reasons, he advocates for the use of market data or surveys of customers instead of CSO surveys.<sup>50</sup>

49. Dr. Steckel is simply incorrect as a matter of economics. The most relevant source of information on the value of a product is the views of the buyers. Hence, in this case, the most relevant source of information on the value of distant signal programming is the views of CSO executives, who are the buyers of the programming and who make such programming decisions as part of their job. Therefore, the Bortz survey of CSOs should be the primary source of information for the Judges.<sup>51</sup> This is especially true given that regression analyses using available marketplace data on distant signals corroborate the findings of the Bortz surveys, as do market data on cable network expenditures.

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<sup>49</sup> Dr. Steckel's opinion in this proceeding is contradicted by much in the previous record, including the Judges themselves, various expert testimony (including my own), and the United States Court of Appeals for the District of Columbia Circuit. See for example: The Judges (Federal Register /Vol. 75, No. 180 / Friday, September 17, 2010. Page 57065. "Having carefully reviewed and considered all of the evidence in the record, the Judges find that the values of the program categories at issue among these contending claimants are most reasonably delineated by a range bounded by certain results indicated primarily by the Bortz constant sum survey" ); expert testimony (e.g., Written Direct Testimony of Dr. Robert Crandall, 2004-05 Phase I (JSC Written Direct Statement Ex. No. 4), 1998-99 Phase I (JSC Written Direct Statement Ex. No. 6), 1989 Phase I (JSC Written Direct Statement Ex. No. 7); Written Direct Testimony of Michelle Connolly, Ph.D., *In re Distribution of Cable Royalty Funds*, December 22, 2016 (hereinafter, *Connolly Testimony*) (supporting Bortz survey and citing prior testimony of experts for CTV, PTV, Canadian and Devotional claimants supporting Bortz survey); and the D.C. Circuit (Program Suppliers v. Librarian of Congress, 409 F.3d 395, 402 (D.C. Cir. 2005), ("Nor did the CARP act unreasonably in declining to rely on Nielsen for direct evidence of viewing, as Bortz adequately measured the key criterion of relative market value. Moreover, as the CARP put it, Bortz 'subsumes inter alia all viewing data that a CSO might consider when assessing relative value of programming groups.'").

<sup>50</sup> Direct Testimony of Joel Steckel, Ph.D., *In re Distribution of Cable Royalty Funds*, December 22, 2016 (hereinafter, *Steckel Testimony*), pp. 7-8.

<sup>51</sup> For ease of reference, when referring to CSO surveys for the purposes of responding to Dr. Steckel, I will refer to the Bortz surveys. See Section IV.F, below, which explains why my analysis supports the Bortz survey as superior to the Horowitz surveys.

**1. In the relevant hypothetical market, the CSO is the buyer and thus the relevant focus of the survey**

50. Dr. Steckel points to the Bortz surveys' reliance on CSO respondents to provide relative valuations for the Agreed Categories as a weakness of the survey. He believes that instead of the opinions of cable executives, one should focus on the opinions of subscribers. However, in both real world and the hypothetical free market for distant signals, the CSO is the buyer of the content. Hence, Dr. Steckel is wrong as a matter of economics: the relevant opinion on value is the opinion of the buyer, which is what the Bortz Survey captures.

51. In fact, the nature of distant signals is such that the value placed on the content by the CSO is the sole determinant of price for distant signals in a hypothetical free market. In general, as a matter of economics, the price for a product is determined by the marginal benefit to buyers and the marginal cost to sellers. In this case, however, the marginal cost to produce distant signals is zero in all cases, as the signals are simply retransmitted signals that have already been produced. Thus, the only variation in a hypothetical free market for distant signals would come from variation in the marginal benefit that CSOs would derive from retransmitting different distant signals. Therefore CSOs' valuation on distant signals is the relevant determinant of price in a hypothetical free market.

52. Dr. Steckel's claim that subscriber surveys would be superior to CSO surveys is misguided. Arguing that one should survey cable subscribers instead of cable operators is to argue that one should not ask the actual buyers what they will pay, but rather the people whose valuations the operators are aggregating. This makes no economic sense. An analogy might be that instead of asking the parents how much they would pay for a vacation, you should survey all the family members (i.e. children) whose views the parents are aggregating in arriving at a willingness to pay for various vacation options. This method could not be as accurate as surveying parents directly, as the survey analyst would then have to decide how to aggregate the views of the various family members into an overall value, when what really matters is how the *parent*, who pays for the trip, would aggregate those values. Similarly, surveying subscribers would leave the analyst

to aggregate those values to make inferences about CSO valuation, when the relevant question is how the CSOs perform such aggregation, which can be answered by asking them directly.<sup>52</sup>

53. In fact, Dr. Steckel ultimately agrees with this. He says “[i]f you want to know if customers will buy a product, ask them. If you want to know why customers are not buying a product, ask them. If you want to know what customers (*i.e.*, the market) value, ask them.”<sup>53</sup> I agree with Dr. Steckel’s reasoning, but the customers *are* the CSOs.

54. Dr. Steckel also argues that “[i]f managers really understood what their customers value, every product would be a success. In fact, we know over half of new industrial products fail.”<sup>54</sup> This argument is entirely beside the point. The purpose of the Bortz survey is not to ask CSOs, as *suppliers*, about the value of new product, rather it is to ask CSOs as *buyers* what they would have spent, on a relative basis, for the Agreed Categories of programming, the relevant question in determining the valuation of those program categories. Dr. Steckel’s argument would apply if Bortz were asking the network executives at the distant signal (e.g. WGN executives) how much they think their content is worth. In that case, Dr. Steckel would be correct that those executives may not know how much various content is worth to buyers. In contrast, the CSOs are the buyers of the distant signals. Therefore the CSOs should be the respondents to the survey valuing distant signal programming.

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<sup>52</sup> See also *Connolly Testimony*, pp. 18-19. On the point of CSOs as buyers, Dr. Connolly states: “Moreover, given that the respondents of the Bortz survey are internalizing their beliefs about subscriber preferences when responding to questions about the relative value of categories of programming, this aspect of the market is reflected in the Bortz survey.” In addition, Dr. Connolly quotes Dr. Steven Wildman, who correctly concludes that “[b]ecause CSOs are the purchasers in the relevant marketplace and subscriber demands are filtered through them, the CSO survey results must be considered more primary and as more directly relevant to the determination of appropriate compensation than the subscriber surveys.”

<sup>53</sup> See *Steckel Testimony*, pp. 40-41.

<sup>54</sup> See *Steckel Testimony*, p. 41.

**2. CSO executives are experts in valuing content**

55. Dr. Steckel believes that cable executives would be unable to respond accurately to the Bortz surveys, because they would give biased answers based on “intuition- and heuristics-based decision-making processes.”<sup>55</sup> In particular, he says that cable executives cannot be expected to value programming, because they “do not make decisions about individual programs or the various categories of programming employed in this proceeding. They make decisions about television stations and cable networks.”<sup>56</sup> This argument is incorrect.

56. The idea that cable executives do not think about underlying types of programming, but only think about networks as a whole, flies in the face of the realities of the cable television industry. In my own work, I interact with both cable executives and content providers regularly. Their discussions about what certain networks are worth – both how cable executives value them and how networks market themselves – are all about breaking down the value of the underlying content. One particularly salient example: as cable executives decide what TBS and TNT are worth, they are directly evaluating the individual value of the sports content, the original content, and the reruns. When they consider what HBO is worth, they consider “Game of Thrones”, other new content, and movies. In fact, cable executives change their entire promotional strategy when “Game of Thrones” premieres on HBO, indicating that they are focused on the underlying shows, not the network generically. When they decide what to pay for an RSN, they value the Sports programming separately from the filler programming. Cable executives do have the expertise and experience to look across their networks and separately value content along the lines of the Agreed Categories; in fact, this is central to their day to day jobs.<sup>57</sup>

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<sup>55</sup> See *Steckel Testimony*, pp. 21-22, 28-34.

<sup>56</sup> See *Steckel Testimony*, p. 23.

<sup>57</sup> See Written Rebuttal Testimony of Allan Singer, September 15, 2017, p. 11; Written Rebuttal Testimony of Daniel M. Hartman, September 15, 2017, p. 1-3, 16-18.

**3. Dr. Steckel's discussion of marginal vs. total values is incorrect**

57. Dr. Steckel argues that the Bortz survey captures only the "marginal return" (that is, the value created by one more minute of programming) of each category, whereas the marketplace value is captured by the "total return."<sup>58</sup> This is simply incorrect.<sup>59</sup>

58. In fact, the Bortz survey asks respondents to focus on the non-network programming on the distant signals they carry, and then asks for the relative value of *each type of programming*, not the marginal value of one more minute of the programming.<sup>60</sup> And then it clarifies that respondents should consider how they would divide up a fixed budget for "all the programming" broadcast on those distant signals. So this question is not asking how much extra they would spend for one additional minute or hour of the programming; it is asking how much they would spend for "all" of each category of programming. Hence this is exactly the right question: it is "marginal" only in the sense that it takes *other, network and cable* programming as given, but it then asks for the total value of the full bucket of minutes of each type of programming broadcast by the distant signals. In this way, it captures the total value of each category of distant signals – not just the value of the last minute – while correctly recognizing that these distant signals are being added to a lineup of other programming.

59. Marketplace behavior for other types of programming (e.g. cable networks) confirms that the Bortz survey asks the right question. For example, in my experience working with multiple CSOs, when they negotiate for a given cable network (or bundle of networks) – from Disney for example – they determine the price they are willing to pay by starting from a base of the other networks they carry and then asking how much additional profit they can make by adding the Disney networks, as a whole. And in doing

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<sup>58</sup> See *Steckel Testimony*, p. 26 ("any presumed equivalence between resource allocations and marketplace value rests on total return, not marginal return.")

<sup>59</sup> Previous testimony on this topic directly contradicts Dr. Steckel. See Testimony of Robert W. Crandall, Ph.D., (JSC Written Direct Statement Ex. 7), pp. 9-14. ("It is this latter measure of value – the total value as represented by the area under the demand curves – that is captured by the Bortz survey.")

<sup>60</sup> See *Bortz Report*, pp. B-5 & B-6, questions 4a and 4b.

so, they consider the value of the various categories of programming (sports on ESPN, animation, etc.) that come with the Disney networks, again as a whole. This process, carried out by each CSO, determines the overall marketplace value of the content across all CSOs. And it's exactly the process that the Bortz survey mimics, by asking how much CSOs would allocate to each category of distant signal programming, in total.

**4. CSO management of multiple systems does not invalidate the Bortz Survey results**

60. Dr. Steckel also argues that the fact that many survey respondents manage multiple cable systems would introduce ambiguity and bias into the survey results.<sup>61</sup> However, this concern is without basis. First, it ignores that the Bortz survey asks very system specific questions about the precise distant signals carried on each system during the relevant period, so confusion should not be an issue.<sup>62</sup> And, even where an executive was the respondent for more than one system, in the Bortz survey a separate questionnaire was administered for each system.<sup>63</sup> Second, cable executives are generally responsible for a *large and changing* number of systems and thus must determine the value of content on the various systems as part of their day to day job. Hence, Dr. Steckel is once again asserting that cable executives are not qualified to answer questions at the heart of their responsibilities, an unreasonable assertion for which he provides no support.

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<sup>61</sup> See *Steckel Testimony*, pp 25-26.

<sup>62</sup> See for example, *Bortz Report*, p. B-3, question 2a. "Industry data indicate that your system serving (ENTER COMMUNITY LISTED ABOVE; i.e., primary community from SOA) and nearby communities carried the following broadcast stations from other cities in 2010", after which the survey administrator reads off individual distant signal channels by call letters.

<sup>63</sup> *Trautman Rebuttal Testimony*, p. 43 n.29. In contrast, in the Horowitz survey when an executive was the respondent for more than one system, "he/she was only asked to respond to one survey for all the systems with the same channels." Corrected Testimony of Howard Horowitz, *In re Distribution of Cable Royalty Funds*, April 25, 2017 (hereinafter, *Horowitz Corrected Testimony*), p. 8.

**5. Analysis of marketplace data corroborates the Bortz surveys**

61. Finally, even if one were to accept any of Dr. Steckel's criticisms, and thus question the accuracy of survey results, the appropriate next step would be to make sure those results are corroborated by actual marketplace evidence. Indeed, Dr. Steckel appears to agree with this approach: He states his preference for the analysis of "market results" and data on "transactions," as opposed to surveys.<sup>64</sup> In this case, actual market result and data on transactions *corroborate* the Bortz survey results. In particular, as explained above, my regression results (as well as Dr. Crawford's) and my analysis of cable network expenditures corroborate the Bortz surveys' findings. Therefore, even if one takes Dr. Steckel's recommendation and relies on actual marketplace data, the Bortz survey results are simply bolstered.

**E. MR. MANSELL'S TESTIMONY ON BEHALF OF PROGRAM SUPPLIERS  
MISINTERPRETS THE IMPLICATIONS OF THE RAPIDLY GROWING SOURCES  
OF CONTENT**

62. Mr. Mansell concludes "that over the past 30 years, the number of live professional and college team sports games on local over-the-air TV stations has significantly declined."<sup>65</sup> In support of this opinion, Mr. Mansell offers a limited history of Sports broadcasting, describing the expansion of Sports programming to cable, the internet and mobile devices.

63. Mr. Mansell's analysis is flawed in at least two fundamental ways. **First**, in his brief summary of this history of Sports programming, Mr. Mansell skips over the most relevant point: Even as the sources of supply of Sports content have expanded, its value (overall and per minute) has remained high. Indeed, Mr. Mansell's own testimony shows the continued value and desirability of Sports programming, as he refers to bidding wars for the Sports programming that has migrated from broadcast networks to RSNs and

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<sup>64</sup> See *Steckel Testimony*, p. 39.

<sup>65</sup> Corrected Testimony of John Mansell, *In re Distribution of Cable Royalty Funds*, March 9, 2017 (hereinafter, *Mansell Corrected Testimony*), p. 4.

national broadcasts,<sup>66</sup> and he affirmatively demonstrates that Sports programming is valuable.<sup>67</sup>

64. Because it ignores the ongoing high value of sports content, Mr. Mansell's analysis is ultimately irrelevant. The statistical and survey methodologies used by myself, Dr. Crawford, and Bortz compute the value of the various categories of programming *given whatever changes have occurred in the marketplace*. For example, my analysis uses data on actual minutes of distant signal content during the relevant period, as well as data on royalties paid by CSOs during the same period, to estimate how CSOs valued the broadcasts according to their Agreed Categories. More generally, to the extent there have been changes in the availability of sports content (or Program Supplier content) from various sources, the data during the relevant time period speak for themselves on the effect of the changes. Put simply, the results of the Bortz surveys, my analysis, and Dr. Crawford's analysis answer the question of value, *reflecting the effect of all industry trends*, whether those discussed by Mr. Mansell or others.<sup>68</sup>

65. Moreover, available data show that Mr. Mansell's conclusion is wrong as a matter of fact, as it pertains to distant signal retransmissions during 2010-13. While Mr. Mansell may be correct that there has been a gradual migration of Sports programming to cable channels and other outlets over the past thirty years, for the comparatively shorter time period between 2004-05 and 2010-13, the relative amount of compensable Sports programming retransmitted on distant signals actually increased. Below I reproduce as Table 11 an analysis that I performed above, comparing compensable minutes by

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<sup>66</sup> See *Mansell Corrected Testimony*, p. 10.

<sup>67</sup> See *Mansell Corrected Testimony*, p. 36.

<sup>68</sup> The Judges reached the same conclusion in the 2004-05 proceeding. See Federal Register /Vol. 75, No. 180 / Friday, September 17, 2010. Page 57070 n.18. ("Various arguments are made by some parties concerning whether or not the Judges must consider or require proof of changed circumstances, separate and apart from the estimates of relative value presented by the parties. We find, as did the 1998-99 CARP, that changed circumstances are embedded within the methodologies that provide reliable estimates of relative valuations and, therefore, have already been accounted for and are subsumed within the calculus of results. See 1998-99 CARP Report at 16, 31-2.")



claimant group in 2004-05 as compared with 2010-13.<sup>69</sup> As this table shows, the percentage of Sports minutes increased slightly from 4.5 percent in 2004-05 to 5.9 percent in 2010-13. Therefore, at least as it affects distant signal retransmission in the recent past, Mr. Mansell's implication that the quantity of Sports programming has declined is incorrect.

**Table 11: Share of Compensable Minutes by Claimant Group Weighted by Subscribers**

Claimant Group	2004-2005	2010-2013
	Ducey	Crawford
Sports	4.5%	5.9%
Program Suppliers	50.1%	33.3%
CTV	15.5%	15.6%
PTV	22.3%	36.3%
Devotional	2.7%	2.3%
Canadian	4.5%	6.6%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>

Source: Crawford Corrected Testimony, April 11, 2017, Figure 12.

Ducey Testimony, June 1, 2009, Exhibit 8.

66. **Second**, Mr. Mansell's analysis overlooks the broader implications of the rapidly evolving media environment, which have had a disproportionately negative impact on the value of other categories of programming, and in particular Program Suppliers, while the value of Sports programming has been remained high. Contrary to Mr. Mansell's conclusions, the industry recognizes that the category of programming that has primarily lost value due to the explosion of content is not live Sports but rather Program Supplier content.<sup>70</sup> This has occurred because the relevant period saw the explosion of Subscription Video On-Demand (SVOD) services like Netflix, Hulu and Amazon, and a general explosion in available content similar to that offered by Program Suppliers.

<sup>69</sup> See Table 5, above.

<sup>70</sup> <http://variety.com/2016/tv/news/peak-tv-2016-scripted-tv-programs-1201944237/> . During 2010-13, the number of basic cable original scripted shows more than doubled. These statistics only account for the number of new shows, and does not account for the explosion of previously viewed content throughout cable, cable on-demand, and SVOD services.

Indeed, by the end of 2013, Netflix had more than 30 million U.S. subscribers,<sup>71</sup> and by the third quarter of 2013, Netflix was streaming about 5 billion hours of video globally, virtually all of it Program Suppliers programming.<sup>72</sup> The explosion of content has thus particularly affected Program Supplier content.<sup>73</sup> Indeed, accepted wisdom today is that the traditional, linear TV model (on which distant signals air) is more dependent on Sports than ever.<sup>74</sup>

**F. MY REGRESSION ANALYSIS DOES NOT CORROBORATE THE FINDINGS OF THE HOROWITZ SURVEYS PERFORMED ON BEHALF OF PROGRAM SUPPLIERS**

67. The 2010-13 Horowitz surveys (Horowitz surveys) were developed by Howard Horowitz with the intention of replicating the “methods and procedures of the Bortz Survey that was done for the 2005 royalty year” but with certain modifications.<sup>75</sup> As one example, particularly relevant to my regression analysis, Mr. Horowitz adds a new category to his survey method: “Other sports,” meant to specify non-team sports programming such as horse racing and figure skating, which is not attributable to Joint Sports Claimants, but rather is attributable to Program Suppliers.<sup>76</sup>

<sup>71</sup> <https://www.nytimes.com/2014/01/23/business/media/growth-of-netflix-subscribers-surpasses-analysts-expectations.html>

<sup>72</sup> <http://variety.com/2014/digital/news/netflix-to-focus-on-adding-higher-rated-and-exclusive-titles-cfo-says-1201187028/>

<sup>73</sup> <http://articles.latimes.com/print/2012/sep/30/entertainment/la-et-st-homeland-market-20121001>. Viewership for individual scripted shows had decreased drastically by the relevant time period.

<sup>74</sup> <http://variety.com/2013/tv/news/sports-fans-to-spend-more-money-to-watch-favorite-teams-1200577215/> . “The price of TV broadcast rights for sports in the age of time-shifted viewing has soared. After all, it’s high-demand content that viewers don’t DVR. And unlike other video entertainment, it’s not available from Netflix or other Internet services.” See also <http://www.reuters.com/article/us-facelxlok-mlb-idUSKBN1602MY> and <https://www.digitaltrends.com/social-media/facebook-and-twitter-are-trying-to-acquire-rights-to-stream-live-tv-content/> , which show that providers like Facebook and Twitter are competing to broadcast Sports games, but are not generally interested in “conventional TV programs.”

<sup>75</sup> *Horowitz Corrected Testimony*, p. 3.

<sup>76</sup> See *Horowitz Corrected Testimony*, p. 5.

68. My regression results, as well as those of Dr. Crawford corroborate the Bortz survey results and fail to corroborate the Horowitz survey results. Hence, actual marketplace evidence supports use of the Bortz survey, not the Horowitz survey, and rejects Mr. Horowitz's claim that not including a separate "Other Sports" category invalidates the Bortz results.

69. Table 11, below, presents a comparison of the results of the Horowitz and Bortz surveys with the results of my regression analysis and Dr. Crawford's regression analysis. As the Table shows, while the Bortz survey matches the regression results well, the Horowitz surveys fail to match the regression results, particularly for the most important, high value categories.<sup>77</sup> The Bortz surveys, my regression analysis and the Crawford regression analysis all imply the same rank order for the top 4 categories: Sports, Program Suppliers, CTV and PTV, in that order. The Horowitz surveys, in contrast, rank these categories as: Program Suppliers, Sports, PTV and CTV, thus failing to match the regression results.

70. It is also notable that the Bortz surveys, my regression analysis, and the Crawford regression analysis all value Sports within roughly 3 percentage points of each other, while the Horowitz valuation (30.0 percent) is 5 percentage points below the lowest, and 8 percentage points below the highest valuation from the other studies. For Program Suppliers, the Horowitz surveys (39.0 percent) are 8 percentage points above the highest of the three analyses, and 12 percentage points above the lowest, whereas Bortz, Israel and Crawford are within roughly 4 percentage points of each other.

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<sup>77</sup> For ease of comparison, I present a royalty-weighted average of the Horowitz survey results. Indeed on a year-by-year basis, some of the Horowitz survey results are even more extreme than this average. See *Horowitz Corrected Testimony*, p. 16, Table 3.2.

Table 12: Comparison of Bortz, Israel, Crawford and Horowitz Results

Claimant Group	Implied Share of Royalties			Horowitz average
	Israel	Crawford	Bortz	
Sports	37.5%	35.1%	38.2%	30.0%
Program Suppliers	26.8%	23.4%	31.0%	39.0%
CTV	22.2%	19.5%	20.6%	12.6%
PTV	13.5%	17.0%	5.1%	13.2%
Devotional	0.0%	0.7%	4.6%	4.7%
Canadian	0.0%	4.2%	0.5%	0.6%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Israel Testimony, December 22, 2016, Table V-2;  
 Crawford Corrected Testimony, April 11, 2017, Figure 20.  
 Bortz Testimony, December 22, 2016, Table I-1.  
 Horowitz Testimony, December 22, 2016, Table 3.2

Notes: Israel analysis spans 2010-2012;  
 Crawford analysis spans 2010-2013;  
 Bortz analysis spans 2010-2013.  
 Horowitz analysis spans 2010-2013.

71. The failure of the Horowitz survey to match actual marketplace evidence, as reflected in the regression results, is not surprising given the flaws in the Horowitz survey laid out by Mr. Trautman and Dr. Mathiowetz in their testimony.<sup>78</sup> In particular, the anomalously high value accorded to Program Suppliers in the Horowitz surveys supports Mr. Trautman's conclusion that the Horowitz surveys tend to bias respondents to overvalue Program Suppliers programming.

72. Finally, I note the fact that my regression analysis, as well as Dr. Crawford's, correctly allocates the minutes in Mr. Horowitz's "Other Sports" category into the appropriate Agreed Categories (including attributing any program that would be included in Mr. Horowitz's "Other Sports" category to Program Suppliers), and yet still closely matches the values found in the Bortz survey, refutes Mr. Horowitz's claim that the Bortz

<sup>78</sup> See *Trautman Rebuttal Testimony*, pp. 12-28; *Mathiowetz Rebuttal Testimony*, pp. 15-27.

survey is somehow invalidated by not accounting for the Other Sports minutes correctly.<sup>79</sup>

**G. DR. GEORGE'S TESTIMONY ON BEHALF OF CANADIAN CLAIMANTS IS FLAWED, AND A CORRECTED ANALYSIS SHOWS LOWER VALUATIONS FOR CANADIAN PROGRAMMING**

73. Dr. George performs a regression analysis that "shares many features of the regression model presented by Dr. Joel Waldfogel in the 2004-05 proceeding," but which she says is "modified to focus more precisely on the value of Canadian Claimant programming."<sup>80</sup> She concludes that the value of an additional minute of Canadian programming is worth roughly \$0.089 within the "Canadian region" of cable operators, and estimates that Canadian Claimants should receive approximately 7.11 percent of the royalty fund.<sup>81</sup>

74. Importantly, in reaching her conclusions, Dr. George simultaneously makes two main modifications to the Waldfogel methodology, without indicating which drives her results:

- First, for her regression analysis, she limits her sample to those cable systems which reside in what she calls the "Canadian region."<sup>82</sup> Using this sample, she estimates an implied share of the royalty fund for Canadian Claimants for those

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<sup>79</sup> See *Horowitz Corrected Testimony*, p. 5.

<sup>80</sup> Written Direct Statement of Lisa M. George, *In re Distribution of Cable Royalty Funds*, December 15, 2016 (hereinafter, *George Testimony*), p. 1. Dr. George amended her testimony on March 8, 2017 (hereinafter, *George Amended Testimony*), and then issued corrections to both the *George Testimony* and the *George Amended Testimony* on May 17, 2017 (hereinafter, *George Corrected Amended Testimony* and *George Corrected Testimony*).

<sup>81</sup> *George Corrected Amended Testimony*, Amended Table 3, p. 6. Dr. George expresses the value of an additional minute of Canadian programming in thousands, at \$88.88 per 1,000 minutes.

<sup>82</sup> Dr. George defines the Canadian region to include both systems that are in the "Canadian Zone" (i.e., the geographic area within which CSOs are permitted to retransmit Canadian signals under the statutory license) and systems "absorbed into the zone through merger." *George Corrected Amended Testimony*, p. 1.

cable systems, and then prorates that share to account for cable systems outside the Canadian region.<sup>83</sup>

- Second, for her programming data, she only separately categorizes programming that appears on Canadian distant signals and lumps all other programming into a single category called “Compensable Minutes on US Distant Signals”.<sup>84</sup>

75. Dr. George focuses her discussion on her choice to limit her sample to only those cable systems that are able to carry Canadian signals, but this is not actually what drives her results. Instead what drives those results for Canadian Claimants is her decision to lump the vast majority of programming into a single “Compensable Minutes on US Distant Signals” category. If one instead properly accounts for the specific programming category into which each minute falls, then even when only considering cable systems in the Canadian region, one finds a royalty share for Canadian Programming that is in line with the results of the Bortz surveys. Hence, Dr. George’s higher Canadian share is driven by *only* separately counting minutes on Canadian signals (which is the only source of Canadian minutes), while using a much noisier measure of minutes in other categories. That is, her results are driven by many important variables on the number of minutes by each other category, thus subjecting her regression to omitted variable bias, not by limiting analysis to the “Canadian region.”<sup>85</sup>

76. In addition to correcting Dr. George’s regression analysis, I have also corrected her calculation for estimating the share of royalties to conform more closely to Dr.

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<sup>83</sup> *George Corrected Testimony*, p. 22.

<sup>84</sup> *George Corrected Testimony*, p. 21.

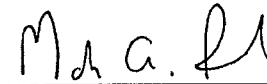
<sup>85</sup> In Appendix C to my testimony, I estimated a model with only two variables concerning the Agreed Categories: 1) Sports programming and 2) Non-Sports programming. As I said in my testimony, by focusing on the result of Sports programming, this “model sensitivity is intended to test whether the value for Sports minutes is sensitive to splitting out the individual programming categories.” My key conclusion was that my finding of high Sports value *was not* affected by this alternative categorization, meaning that it was robust to such change in categories. Hence this finding was the opposite of Dr. George’s result, which holds *only if* the programming categories are collapsed and does not hold in a more complete model.

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Waldfoegel's original method, listed in this table as "Corrected Canadian Royalty Share". Dr. George includes negative coefficient values, such as her estimate for Program Suppliers programming on Canadian signals, in her calculation, rather than setting them to zero, which distorts the royalty shares for categories with positive coefficients. I also remove the weighting scheme that Dr. George used in her calculation, which weighted results by the number of subscribers at each CSO. The Waldfoegel-type regression method estimates the royalties per CSO, not the royalties per subscriber, as a function of the CSO's distant signal programming and various control variables. Weighting the total CSO minutes by subscriber is therefore not an appropriate use of the output of this regression, because the functional form of the regression assumes that royalties are measured per CSO, not per subscriber. As a result of these changes to Dr. George's royalty share calculation, even using Dr. George's own regression results yields only a 3.95 percent share of the total royalty pool for Canadian programming.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 14, 2017.



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Mark A. Israel

PUBLIC VERSION

**TECHNICAL APPENDIX**



**V. TECHNICAL APPENDIX: THE DETAILS OF DR. GEORGE'S REGRESSION ANALYSIS**

1. Table 13, below, compares:
  - 1) Dr. George's original base regression results
  - 2) Dr. George's regression, breaking out all Agreed Categories (by using the measure of minutes from the data used in my regression).<sup>86</sup>

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<sup>86</sup> As I only have programming data categorized for 2010-12, this sample excludes the year 2013. Full regression results and implied royalty share calculations for all Agreed Categories are provided in my underlying documents.

## PUBLIC VERSION

Table 13: Regression Models Concerning the Canadian Region

	(1)	(2)
	George Base Model (2010-2013)	George Model with Individual Programming Categories (2010-2012)
Corrected Canadian Royalty Share	3.95%	1.48%
Dr. George's Calculation of Canadian Royalty Share	7.11%	2.25%
Minutes of Canadian Programming		0.371** (0.148)
Minutes of Commercial TV Programming		1.100*** (0.384)
Minutes of Devotional Programming		0.141 (0.338)
Minutes of Program Suppliers Programming		0.0227 (0.150)
Minutes of Public Broadcasting Programming		1.553*** (0.291)
Minutes of Sports Programming		7.633** (3.527)
Minutes of Other Programming		1.634*** (0.586)
Minutes of Network Programming		1.132*** (0.429)
Distant Canadian Signals - Wtd. Canadian Minutes (1,000)	88.88*** (32.92)	
Distant Canadian Signals - Wtd. Sports Minutes (1,000)	906.8 (774.1)	
Distant Canadian Signals - Wtd. Program Supplier Minutes (1,000)	-293.8** (121.0)	
Distant Domestic Signals - Wtd. Total Minutes (1,000)	44.09*** (5.294)	
Observations	2,198	1,657
R-squared	0.861	0.854

Robust standard errors in parentheses

\*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

2. As column (2) of Table 13 shows, estimating Dr. George's model with controls for all programming categories (thus avoiding omitted variable bias)—but still limiting analysis only to CSOs from the Canadian region—yields an estimate for Canadian programming of roughly 1.48 percent of the total royalty fund. This result is much

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smaller than Dr. George's own finding of 7.11 percent for Canadian programming's royalty share, and much closer to the Bortz surveys' estimate of 0.5 percent.

3. As seen in the second column of Table 13, the values on many other categories of programming are quite different from my base model when restricted to the Canadian region. This is, however, in no way a refutation of my base results, which correctly reflect the full set of CSOs. Finding different results when restricting only to a small, non-randomly selected set of CSOs is not surprising, but is also irrelevant to the question of the appropriate values, reflecting the full set of CSOs.

## VI. TECHNICAL APPENDIX: DR. GRAY'S TABLE 1

4. Table 14, below, compares the results of Dr. Gray's Table 1 to the results of his analysis but without the use of his sampling weights. The results for JSC programming in particular are very similar between the two versions.

**Table 14: Comparison of Weighted and Unweighted Gray Table 1 Results**

Share of All Retransmissions								
	Original Gray Table 1				Unweighted Gray Table 1			
	2010	2011	2012	2013	2010	2011	2012	2013
Canadian Claimants	0.5%	1.4%	1.5%	0.8%	3.4%	4.0%	6.3%	5.8%
Commercial Television	11.7%	10.2%	14.6%	14.4%	11.5%	11.0%	12.2%	10.7%
Devotionals	7.8%	12.1%	5.4%	6.9%	5.2%	4.7%	2.3%	2.8%
Program Suppliers	55.4%	54.0%	38.3%	50.7%	45.5%	43.7%	34.2%	37.3%
Public Television	24.5%	22.1%	40.1%	26.9%	34.2%	36.4%	44.9%	43.3%
JSC	0.2%	0.2%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%

Share of All Volume								
	Original Gray Table 1				Unweighted Gray Table 1			
	2010	2011	2012	2013	2010	2011	2012	2013
Canadian Claimants	0.5%	1.8%	1.3%	0.8%	3.2%	4.0%	5.9%	5.5%
Commercial Television	12.8%	11.8%	18.5%	14.2%	12.8%	12.5%	14.6%	11.2%
Devotionals	8.2%	11.5%	5.3%	6.4%	5.2%	4.5%	2.3%	3.0%
Program Suppliers	53.5%	52.1%	35.8%	52.1%	43.6%	41.2%	31.5%	36.1%
Public Television	24.4%	22.1%	38.6%	25.8%	34.6%	37.2%	45.3%	43.7%
JSC	0.7%	0.7%	0.5%	0.7%	0.6%	0.6%	0.4%	0.5%

Source: Gray Corrected Table 1 and Backup Materials



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Before the  
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Washington, DC

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*In re*

DISTRIBUTION OF CABLE  
ROYALTY FUNDS

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) NO. 14-CRB-0010-CD (2010-13)  
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Written Rebuttal Testimony of

NANCY A. MATHIOWETZ  
September 15, 2017

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**I. QUALIFICATIONS**

1. I am Professor Emerita, Department of Sociology at the University of Wisconsin-Milwaukee (UWM). Prior to joining the faculty at UWM in 2003, I was Associate Professor, Joint Program in Survey Methodology, University of Maryland and University of Michigan. My research focuses on various aspects of survey methodology, including, but not limited to, the effects of mode and methods of data collection, question and questionnaire design, response error, and means to assess and reduce various sources of error in the survey process. I have taught courses on survey methodology, questionnaire design, and advanced statistical methods and have offered short courses on questionnaire design to various audiences. I have testified as an expert on survey research methodology in federal and state court cases.

2. My qualifications as an expert on survey research methodology are set forth in greater detail in Appendix A to my written direct testimony in this proceeding on behalf of the Joint Sports Claimants (JSC) (dated December 22, 2016).

**II. INTRODUCTION AND SUMMARY**

3. My written direct testimony discusses the 2010-13 cable operator surveys conducted by Bortz Media & Sports Group, Inc. (Bortz surveys). As I explain in that testimony, the Bortz surveys provide a valid and reliable assessment of the relative market value of the different categories of distant signal programming that cable systems carried during the years 2010-13. The purpose of my rebuttal testimony is to address the written direct testimony submitted in this proceeding by (1) Joel Steckel, Ph.D., Howard Horowitz, and Martin R. Frankel, Ph.D., on behalf of the Program Suppliers; and (2) Debra J. Ringold, Ph.D. on behalf of the Canadian Claimants Group.

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4. The testimony of Dr. Joel Steckel is a critique of surveys of cable system executives, that is, the methodology used by both Horowitz and Bortz in their respective data collection efforts. In my opinion, Dr. Steckel is incorrect to assert that cable operator surveys are inadequate for assessing the issue of relative market value in this proceeding. Dr. Steckel's criticism are far ranging; he asserts that the surveys do not measure market value, sample the wrong population (cable system operators), and result in invalid data due to the nature of the key constant sum question (which he considers too complex) and the mode of data collection (telephone). These criticisms have been raised in previous proceedings; the Copyright Royalty Judges (CRJs) in the Distribution of the 2004 and 2005 Cable Royalty Funds noted, "Yet, whether taken individually or viewed as a group, we do not find these other criticisms to undermine the general usefulness of the Bortz survey for the purpose offered" (Federal Register, Vol. 75, September 17, 2010, p. 57068). I provide below (see Section III) detailed responses to Dr. Steckel's arguments against the use of the Bortz survey data.

5. The testimony of Howard Horowitz and Dr. Martin Frankel present the methodology and findings from surveys conducted in 2010-2013 ("Horowitz surveys"); the methodology used in the Horowitz surveys is similar to that used by Bortz for the JSC. However, there are key differences in the design and implementation of the Horowitz survey and the Bortz survey that I discuss below. The testimony of Dr. Debra Ringold describes the methodology and findings from surveys conducted in 2010-2013; in contrast to the Bortz and Horowitz surveys, the Ringold/Ford surveys are limited to the assessment of the relative value of programming on Canadian Signals.



6. While properly designed cable operator surveys are useful for assessing relative value in this proceeding, my review of the Horowitz survey and the Ford/Ringold survey leads me to conclude that the flaws in each of these surveys renders them neither reliable nor valid for the production of valuation estimates. As detailed below (Section IV), the Horowitz survey design suffers from a number of significant flaws, most notably the inclusion of incorrect and misleading information as part of the questions posed to the respondents. In addition, the implementation methodology places undue burden on the respondents, asking executives to provide information for the full universe of CSOs (not just the sampled CSOs) as well as asking executives to report about a large number of CSOs, often in a single questionnaire.

7. With respect to the Ford/Ringold survey, the analytic sample is biased, giving preference to French-language systems, and its small sample size leads to unreliable estimates. Other concerns with the Ford/Ringold survey are detailed below (Section V).

### **III. DR. STECKEL'S CRITICISMS OF THE BORTZ SURVEY ARE WITHOUT MERIT**

8. Dr. Joel Steckel criticizes both the Horowitz and Bortz surveys. He asserts that the surveys do not measure market value, sample the wrong population (cable system operators), and result in invalid data due to the nature of the key constant sum question (which he considers too complex) and the mode of data collection (telephone). Dr. Steckel advocates for surveying the consumers of cable system programming, the subscriber, as opposed to surveying cable system operators. These are not new arguments in these proceedings—for example, each of these points was previously made

by Program Suppliers' expert Dr. Alan Rubin, whom Dr. Steckel cites (p. 34)<sup>1</sup>—and despite these arguments the CRJs, their predecessors and the courts repeatedly have found the Bortz survey to be useful in determining the appropriate allocation of copyright royalties.

9. I disagree with Dr. Steckel's assessment of the two surveys.<sup>2</sup> In reviewing Dr. Steckel's critique, I will draw upon Diamond's "Reference Guide on Survey Research," one of the chapters of the *Reference Manual on Scientific Evidence, Third Edition* (2011).<sup>3</sup> Diamond frames her chapter as responses to a series of questions, several of which speak directly to the concerns raised by Dr. Steckel. These questions include:

- Was the survey designed to address relevant questions?
- Was an appropriate universe or population identified?
- Were questions on the survey framed to be clear, precise and unbiased?
- What limitations are associated with the mode of data collection used in the survey?

Dr. Steckel also raises other concerns that do not align with the *Reference Manual*. I will address these issues at the end of this section.

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<sup>1</sup> Like Dr. Steckel, Dr. Rubin argued that the appropriate population to survey was not cable system operators but cable subscribers (*e.g.*, September 2009 Corrected Testimony of Alan M. Rubin, pp. 4, 9-14); that the Bortz constant sum question was too complex (*e.g.*, November 1991 Testimony of Alan M. Rubin, pp. 10-11; October 1985 Testimony of Alan M. Rubin, pp. 5-6); and that the surveys should not have been conducted over the telephone (*e.g.*, November 1991 Testimony of Alan M. Rubin, p. 7).

<sup>2</sup> I note that Dr. Steckel's review of the Bortz survey relies on the 2004-2005 Bortz surveys and does not reflect multiple changes made in the methodology for the 2010-2013 Bortz surveys, and therefore a number of his criticisms are inapplicable to the Bortz surveys at issue in these proceedings.

<sup>3</sup> Dr. Steckel cites to a brief discussion of survey research in the *Manual for Complex Litigation* (4th ed. 2004), which includes some similar criteria to, but is less comprehensive than, Diamond's chapter in the 2011 *Reference Manual*.

**A. Was the survey designed to address relevant questions?**

10. The language used by the CRJs in the Distribution of the 2004 and 2005 Cable Royalty Funds (Federal Register, Vol. 75, September 17, 2010) states:

...the sole governing standard is the relative marketplace value of the distant broadcast signal programming retransmitted by cable systems during 2004 and 2005 (p. 57065).

Dr. Steckel asserts that the Bortz and Horowitz surveys' measurements of the cable system operators' valuations do not correspond to the marketplace value standard. As Dr. Steckel acknowledges (p. 22), the Copyright Arbitration Royalty Panel (CARP) determined that the constant sum question posed in the Bortz survey "is largely the question the Panel poses when it constructs a simulated market" (Report of the CARP in Docket No. 94-3 CARP CD 90-92, p. 65 (May 31, 1996)).<sup>4</sup> The CARP further stated that the Bortz survey was "focused more directly than any other evidence to the issue presented: relative market value" (*Id.*).

11. Dr. Steckel contends that the CARP was incorrect. However, subsequent decisions in statutory royalty proceedings likewise have found that the Bortz survey is well-suited to assessing the relative market value of different types of programming to cable system operators (CSOs) in the hypothetical market. For example, in approving the CARP allocation of the 1998-99 cable royalties, the Librarian of Congress approved the CARP's reliance on the Bortz survey and cited the CARP's determination "that the Bortz survey best projected the value of broadcast programming in the hypothetical

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<sup>4</sup> The Librarian of Congress adjusted the CARP's royalty allocations to account for settlements of claims by the Music Claimants and National Public Radio, and to correct errors in the apportionment of "3.75 Funds," and otherwise approved the CARP's determination; the Librarian's decision was affirmed on appeal. *National Association of Broadcasters v. Librarian of Congress*, 146 F.3d 907 (D.C. Cir. 1998).

marketplace . . .” (Federal Register, Vol. 69, January 26, 2004, p. 3609). The Librarian’s decision was affirmed in an appellate decision stating: “Nor did the CARP act unreasonably in declining to rely on Nielsen for direct evidence of viewing, as Bortz adequately measured the key criterion of relative market value. Moreover, as the CARP put it, Bortz ‘subsumes *inter alia* all viewing data that a CSO might consider when assessing relative value of programming groups.’” *Program Suppliers v. Librarian of Congress*, 409 F.3d 395, 402 (D.C. Cir. 2005). The court further observed that “[t]he Bortz survey, supplied by JSC, measures what CSOs perceive as the relative market value of different types of programming.” *Id.* at 398. Similarly, the CRJs’ decision allocating the 2004-05 cable royalties found “the Bortz study to be the most persuasive piece of evidence provided on relative value in this proceeding” and that “[t]he Bortz intervals certainly mark the most strongly anchored range of relative programming values produced by the evidence in this proceeding” (Federal Register, Vol. 75, September 17, 2010, pp. 57066, 57068).

12. Based on the historical comments of the CRJs, CARP, the Librarian, and the Court of Appeals, it appears that both the Bortz and Horowitz surveys, by focusing on the relative valuations placed on program categories by cable system operators, are in fact addressing the relevant question of interest.

**B. Was an appropriate universe or population identified?**

13. Dr. Steckel criticizes both the Bortz and Horowitz surveys for surveying cable system operator executives. Specifically, he maintains that “the relevant opinions for projecting marketplace results are not those of cable executives; they are those of cable customers” (p. 40). He goes on to state, “If you want to know what customers (*i.e.*, the market) value, ask them” (p. 41). However, as discussed above, the CRJs, CARP, the

Librarian and the appellate court consistently have stated that the relevant customers in the hypothetical market would be the CSOs, and that the Bortz survey is an appropriate methodology for assessing CSOs' relative valuations. Thus, the CRJs' 2004-05 determination stated "the Bortz survey focuses on the appropriate buyer in the hypothetical market—*i.e.*, the cable operator" (Federal Register, Vol. 75, September 17, 2010, p. 57066).

**C. Were questions on the survey framed to be clear, precise and unbiased?**

14. The criticisms that Dr. Steckel offers with respect to the constant sum questions are unfounded. As the Librarian has observed, "uncontroverted testimony and years of research indicate rather conclusively that constant sum methodology, as utilized in the Bortz survey, is highly predictive of actual marketplace behavior" (Federal Register, Vol. 69, January 26, 2004, p. 3615). The CRJs have likewise stated: "We find that the Bortz study is founded on a method—the constant sum survey—that has been long regarded as a recognized approach to market research. Tr. at 50 (Trautman), 1299 (Ringold), and 3007 (Gary Ford)" (Federal Register, Vol. 75, September 17, 2010, pp. 57066-67). These findings reflected substantial evidence presented by JSC and other parties regarding the suitability of constant sum questions for purposes of the Bortz survey.

15. For example, as Dr. Steckel notes (p. 34), Professor Leonard Reid presented detailed testimony explaining why constant sum questions were appropriate for the Bortz survey. Professor Reid explained that "[t]he constant sum scale is a widely accepted and often-used measurement tool in marketing research" and discussed a number of the underlying studies establishing the utility of that technique (August 1991 Testimony of

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Leonard N. Reid (Reid Testimony) (JSC Written Direct Statement, Vol. II, Tab 14), pp. 5-14). As Professor Reid observed, “the constant sum technique is particularly well-suited for measuring behavioral intentions, past actions, and evaluative preferences” (Reid Testimony, p. 6). He further observed that “[t]he pragmatic value of the constant sum technique for measurement purposes may be demonstrated by its application in the field,” noting the routine use of this technique by leading marketing firms and major corporations (Reid Testimony, pp. 12-14).

16. While Dr. Steckel faults Dr. Reid for citing (among other studies) a seminal study by Dr. Joel Axelrod and suggests that Dr. Axelrod’s study weighs against the use of the constant sum technique for purposes of the Bortz survey (p. 35), he ignores (and perhaps was unaware) that Dr. Axelrod himself has testified in a prior cable royalty distribution proceeding that “the use of the constant sum technique in order to determine the relative values that cable operators attach to different types of programming is appropriate” and that nothing in his study suggests any issue with Bortz’s use of that technique (Oral Testimony of Joel N. Axelrod, Docket No. 94-3 CARP CD 1990-1992 (Axelrod Oral Testimony) (JSC Written Direct Statement, Vol. III, Tab 2), pp. 11130-34, 11249-50; February 1996 Rebuttal Testimony of Joel Axelrod (Axelrod Rebuttal Testimony) (JSC Written Direct Statement, Vol. II, Tab 2), pp. 2-4).

17. I agree with Dr. Steckel that the constant sum question might be difficult to answer if posed to respondents of a general population survey. But the respondents to the Bortz and Horowitz surveys are executives of cable system operations, who engage in complex business decisions as part of their professional lives. Dr. Steckel suggests that the task in the constant sum method requires executives to make judgments about

“unfamiliar constructs,” but program valuations are not unfamiliar constructs to cable system executives.<sup>5</sup> As noted by Bortz, survey interviewers sought responses from the individual “most responsible for programming carriage decisions” (Bortz, pp. 14-15). The Written Rebuttal Testimony of Daniel Hartman (pp. 16-17) and Allan Singer (p. 11) confirm that the task of assessing relative value of programs is part of the job related to purchasing signals.

18. Dr. Steckel also fails to account for differences between the Bortz and Horowitz surveys with respect to the formulation of the questions. It is important to point out that in his critique of the Bortz methodology, Dr. Steckel reviewed the 2004-2005 data collection instrument and not the revised instrument used by Bortz for the 2010-2013 surveys. Presented below is the wording of the constant sum question used by Bortz in 2010-2013:

Now, I would like you to estimate the relative value to your cable system of each category of programming actually broadcast by the stations I mentioned during 2010, excluding any national network programming from ABC, CBS and NBC. Just as a reminder, we are only interested in U.S. commercial station(s) \_\_\_\_\_, U.S. non-commercial station(s) \_\_\_\_\_, and Canadian station(s) \_\_\_\_\_.... Assume your system spent a fixed dollar amount in 2010 to acquire all the non-network programming actually broadcast during 2010 by the stations I listed. What percentage, if any, of the fixed dollar amount would your system have spent for each category of programming? Please write down your estimates, and make sure they add to 100 percent.<sup>6</sup>

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<sup>5</sup> I note that this argument has been asserted previously. See October 1985 Testimony of Alan M. Rubin (p. 5) in which he states, “Operators and subscribers were asked to do something completely abnormal to their routine cable television behaviors.” Despite this criticism, previous CRJs have consistently looked to the Bortz survey with respect to their allocation decisions (see, for example, Federal Register, Vol. 75, September 17, 2010).

<sup>6</sup> In response to comments expressed by the CRJs in their 2004-2005 Distribution Order, the wording used in 2010-2013 was modified from the wording used in 2004 and 2005 where, as in previous surveys, the Bortz constant sum question asked respondents to “assess the different programming categories in terms of their relative value in ‘attracting and retaining subscribers’” (Bortz, p. 40).

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The wording used for the Horowitz surveys is as follows<sup>7</sup>:

Now, considering everything we have been discussing, I would like you to estimate the *relative value* to your cable system of each type of **[NETWORK CARRYING SYSTEMS (E): non-network]** programming actually broadcast during 2013 by **[INSERT STATION(S) FROM LIST - COLUMN J]**.... Assume you had a fixed dollar amount to allocate for the **[NETWORK CARRYING SYSTEMS (E): non-network]** programming actually broadcast during 2013 on **[INSERT STATION(S) FROM LIST - COLUMN J]**.... Considering the value of each type of programming to your cable system, what percentage, if any, of the fixed dollar amount would you allocate for each type of programming? Please write down your estimates and make sure they add to 100 percent.... In formulating your percentage, please think about all the factors we have been discussing, including using this programming in your advertising and promotions in 2013 to attract and retain customers, the importance of this programming to you and your subscribers, and any other considerations you may have.

As is evident from a comparison of the wording of these two constant sum questions, the Horowitz question asks the respondent to focus on valuations related to advertising and attracting and retaining customers, similar to the wording used in 2004-2005 by Bortz and criticized by the CRJs with respect to the 2004-2005 Distribution of Cable Royalty Funds. While the Horowitz question used in 2010-2013 does ask the respondent to “think about all factors,” the wording specifically calls out the issue of attracting and retaining customers. As noted by the CRJs in 2010, “a myriad of other net revenue considerations may be involved in any programming decisions” (Federal Register, Vol. 75, September 17, 2010, p. 57066).

19. A key requirement as outlined by Diamond is that questions be framed so as not to bias the respondents. As discussed in part IV below, the Horowitz questionnaire fails this condition, specifically in its use of examples for the Program Suppliers category.

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<sup>7</sup> Note that the wording reported here is not the wording used for PBS only or Canadian only stations. See Direct Testimony of Howard Horowitz (Horowitz), Appendix A, p. 36.



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The examples used to describe the Program Suppliers category are misleading and biased in favor of Program Suppliers. See pages 16-18 below.

20. Dr. Steckel states that both the Bortz and Horowitz questions are “ambiguous” (p. 25) because the respondent is asked about a “system” (singular) when, in many cases, the respondent has responsibility for multiple cable systems. However, on this design issue, the Bortz and Horowitz surveys differ significantly. In the Bortz survey, if a single executive was responsible for more than one cable system, that executive completed a separate survey questionnaire for each system, focusing on a single cable system’s distant signals for each questionnaire (Written Rebuttal Testimony of James M. Trautman, p. 43, n. 29). In contrast, in the Horowitz survey, when a single executive was the respondent for more than one system, the executive “was only asked to respond to one survey for all the systems with the same channels” (Horowitz, p. 8), meaning that the respondent was tasked with addressing multiple cable systems in a single survey questionnaire. Hence, the criticism offered by Dr. Steckel on this point is only applicable to the Horowitz data collection effort.

21. I note that Dr. Steckel offers no empirical data to support his assertion that the constant sum questions are “complex” (p. 28).<sup>8</sup> In my experience, when respondents are asked questions that they are not able to process cognitively due to the complexity of the question, the data reflect this in either high rates of missing data or illogical responses.

We see neither of these patterns in the Bortz data.

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<sup>8</sup> Program Suppliers’ experts have made the same assertion in prior proceedings; see for example the October 1985 Written Direct Testimony of Alan M. Rubin, and November 1991 Written Direct Testimony of Alan M. Rubin. Despite these previous concerns, the Program Suppliers adopted a constant sum methodology for the measurement of valuation in 2010-2013.

22. Finally, in his criticism of the constant sum methodology, Dr. Steckel notes several recent publications that outline new methodologies for collecting preference data. In contrast to the vast literature supporting the extensively used constant sum approach, Dr. Steckel is advocating for the adoption of techniques only recently introduced in the literature without significant testing and validation for the question of interest to the CRJs.

23. With respect to the Lourviere and Islam article cited by Dr. Steckel for the proposition that “indirect” measures of importance outperform direct measures, it is important to note that the authors also offer several cautions with respect to the use of “indirect” measures of which Dr. Steckel is advocating, including the susceptibility of these measures to context effects. Moreover, the authors never conclude that indirect measures outperform direct measures such as constant sum questions.

24. With respect to the other methodologies cited by Dr. Steckel (Netzer and Srinivasan, 2011 and Srinivasan and Wyner, 2009), these studies have only recently moved into the peer-reviewed literature, and both studies are based on web-based data collection (no interviewer) and focus on cases where there are a large number of attributes to assess (> 10). In contrast, the Bortz and Horowitz constant sum task focuses on only 5 to 8 program categories (depending upon the system) and were completed through live telephone interviews. One would be remiss to adopt the new approaches described in these articles based on the findings from a few recent studies.

**D. What limitations are associated with the mode of data collection used in the survey?**

25. Dr. Steckel claims that using the telephone for data collection results in unreliable and invalid data. Yet he does not provide any empirical support for that claim, and he

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ignores that telephone surveys of business entities are widely used and recognized as producing reliable, valid data.<sup>9</sup>

26. As Dr. Axelrod testified in the 1990-1992 royalty proceedings, the use of telephone surveys is “an accepted survey research technique,” is “widely done,” and is appropriate for the purpose of administering the Bortz survey (see Axelrod Oral Testimony, pp. 11122, 11130-11134, 11223-25). The decision as to which mode of data collection to use is one that concerns tradeoffs between costs and potential errors. Each mode has its benefits and its limitations. Self-administered surveys such as those conducted via traditional mail or as web-based surveys benefit from allowing the respondent to read the material but are limited in that (1) one is never assured that the respondent fully reads any one question; (2) one cannot know with certainty who has served as the respondent; and (3) the lack of an interviewer forces the respondent to undertake the task by him/her self, with no means to seek clarification concerning a question or a response category. Interviewer-administered questions benefit from the presence of an interviewer—both to encourage overall response and to assist in the task—but the presence of an interviewer can also be detrimental in the measurement of socially desirable or undesirable behavior.

27. Indeed, the use of the telephone for the collection of survey data has been popular in the United States since the early 1970s and only recently has been in decline for general population surveys. However, for the Bortz and Horowitz surveys, we are not discussing general population surveys but rather a survey of business entities for which

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<sup>9</sup> I note that Alan Rubin in his Testimony of November, 1991 also asserted that the constant sum technique should only be used with “personal, face-to-face interviewing” (p. 7).

telephone surveys are quite prevalent. Moreover, to assist respondents at CSOs who carried only WGNA distant signals, the Bortz methodology used for the 2010-2013 data collection included advance mailing of materials identifying the compensable and non-compensable programming on WGNA. In contrast, the Horowitz survey did not provide such materials. As a result, no clear delineation of compensable and non-compensable programs was articulated for respondents to the Horowitz survey for whom WGNA was the only distant signal carried.

28. Dr. Steckel also criticizes the use of telephone surveys for data collection, citing a paper by Dr. Joel Axelrod as “caution[ing] against using constant sum measures in a telephone interview” (p. 35). However, in prior proceedings Dr. Axelrod himself appeared as a witness, discussed that same paper, and testified that the use of telephone surveys was appropriate for the purpose of administering the constant sum question in the Bortz survey (see Axelrod Oral Testimony, pp. 11130-11134).

29. I note that Dr. Steckel incorrectly asserts that the unit of analysis of the Bortz and Horowitz surveys is the cable system executive and not the cable system. He states: “The data are collected and tabulated with the unit of analysis being the respondent cable system executive, not the cable system” (p. 25). While the *respondent* in each of the surveys is an executive, the *analytic unit* for each of the surveys is the cable system, with weights corresponding to copyright royalties paid by the system. Based on his comments, it appears that Dr. Steckel has not examined the data from either the Bortz or Horowitz data collection efforts. Dr. Steckel is incorrect in his assertion that estimates from the studies are biased in favor of small cable operators.

30. In sum, I find the arguments put forth by Dr. Steckel to reiterate previous concerns expressed by experts for the Program Suppliers and which, in previous proceedings, have not been found to undermine either the methodology of or the estimates derived from the Bortz survey. I disagree with Dr. Steckel's assessment that the Bortz and Horowitz surveys focus on the wrong population to study; he asserts that the viewing public and not cable system executives should be the focus of study. Cable system executives *are* the relevant population to study for this task; in contrast to the viewing public, CSO executives are familiar with the concept of program valuations and utilize this information in contract negotiations. As such, there is no foundational support for Dr. Steckel's criticism that the constant sum question is "too complex."

**IV. THE HOROWITZ SURVEY IS FUNDAMENTALLY FLAWED AND PROVIDES NEITHER A VALID NOR RELIABLE BASIS FOR ESTIMATING RELATIVE VALUE**

31. The written direct testimony of Howard Horowitz summarizes the design and implementation of cable system operator surveys conducted by Horowitz Research for each of the years 2010-2013. The written direct testimony of Martin R. Frankel, Ph.D. provides information related to the sample design and estimation for the Horowitz surveys, 2010-2013.

32. The questionnaire and sample design of the Horowitz survey are similar in nature to those used by Bortz Media and Sports Group, Inc. Both surveys make use of a stratified random sample of Form 3 cable system operators, for which the strata are defined according to annual royalty amounts for the respective years. The mode of data collection is the same for the two studies—telephone—and the key question of interest, that is, program valuation, is based on a constant sum methodology. The survey questionnaire for both Bortz and Horowitz includes preliminary questions that measure

the respondent's perception of the importance of different types of program categories and introduces the respondent to the specific program categories of interest. The implementation of the two studies calls for both interviewers and respondents to be blinded to the respective sponsors of the data collection effort. And in the implementation of the two sets of studies, we see response rates that exceed the current norms in the industry.

33. However, there are significant differences in the two studies, and these differences are critical to understand in assessing the relative validity and reliability of the two sets of estimates for 2010-2013. The key design differences between the Bortz and Horowitz surveys include the following:

- The misuse of illustrative programming examples and “such as” programming descriptions—including the provision of incorrect examples, incorrect descriptions and programs that were not broadcast on a compensable basis;
- The failure to provide information identifying compensable programs on WGNA;
- The addition of an inappropriate “other sports programming” category;
- The consolidation of surveys in which a respondent was queried about multiple systems simultaneously; and
- The unnecessary burden of requiring respondents to consider *all* of the distant signals carried by a cable system.

**A. Misuse of Illustrative Examples and “Such As” Descriptions**

34. The Horowitz survey's relative value question (Question 6) violates general principles of questionnaire design due to its misleading and inconsistent use of examples and “such as” descriptions across program categories. As discussed in Diamond's “Reference Guide on Survey Research,” a fundamental requirement for a sound survey is that the questions must be “clear, precise and unbiased” (p. 387). Even an accurate example may inject bias into a survey question—for example by limiting respondents'

consideration to those examples that are offered (Beatty, Cosenza, and Fowler, 2006), or by increasing the reported frequency for the response category (Tourangeau, Conrad, Couper, and Ye, 2014). And where a survey question uses an inaccurate or misleading example, that renders the question (of which the example is part) inherently imprecise and biased. If examples are meant to serve as a means to improve comprehension of a question or a response category, then it is imperative that the examples not be misleading.

35. Of the problems with the Horowitz survey's relative value question, the inclusion of incorrect information as part of the response category descriptions is the most egregious. The rebuttal testimony of James Trautman lists in detail numerous errors in the program examples and "such as" program descriptions provided to the Horowitz survey respondents, both with respect to all of the WGNA-only systems and systems that included only WGNA and public broadcasting, as well as many of the other systems (Written Rebuttal Testimony of James M. Trautman, pp. 18-28). These errors include providing the cable system respondents with examples and descriptions of programming that the cable systems did not actually carry, or that was not compensable, or that was attributed to the incorrect program category. As a result of these inaccuracies, the questions are biased and therefore the responses are not valid representations of valuations for the various program categories.

36. In addition to these errors, I also note that the descriptions of program categories are inconsistent across the categories. As shown in Appendix A of Horowitz, no examples are offered with respect to the category "News and Community Events," whereas a similarly self-explanatory category "Movies" offers six examples in addition to three movie sub-categories offered as part of the "such as" clause. The examples offered

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for the “Live, play-by-play coverage of professional and college team sports” are not examples but rather the full enumeration of the sports programs associated with this category. Sometimes a program category includes examples of sub-categories (through the use of “such as” descriptions) as well as specific program titles; for other program categories there are neither examples of sub-categories nor examples of specific program titles; and some program categories include only specific program examples.

37. These inconsistencies in the program category descriptions are significant. First, respondents give greater cognitive processing the longer the response category offered—so those categories that incorporate “such as” program subcategories and illustrative examples will benefit from greater cognitive processing by the respondent. The goal in designing response categories for a question is to minimize differences in the level of cognitive processing by the respondent across the various categories since differences in the level of processing may contribute to differences in responses. Second, frequency—or in this case, relative valuations—most likely are impacted by the use of examples. Thus, we would expect that valuations across categories could have differed, in part, as a result of the variation in language (“such as”) and variation in the use of illustrative examples. So as to minimize the measurement error attributed to question wording, each of the program categories should have been treated equally with respect to the number of illustrative examples and the use of “such as” language.

38. Although the inconsistencies in the structure of the program categories most likely impacts the estimation for these respective categories, it is the presentation of misleading information included in the description of program categories that results in my assessment that the questions (and response categories) are biased.



**B. Failure to Identify Compensable WGNA Programming**

39. Not only is the valuation question flawed due to what information is provided, the Horowitz questionnaire also suffers from errors of omission, specifically with respect to the identification of compensable programs for systems that carried WGNA. A key issue for signals that carry WGNA is for the respondent to understand which programs on WGNA are compensable and which are not. The Bortz surveys of WGNA-only systems addressed this issue by pre-mailing affected respondents a description of the compensable programs on WGNA every year, including the total number of hours of such programming (see Bortz, p. 30).

40. This feature of the Bortz surveys was new to the 2010-2013 data collection effort and addresses, in part, a concern raised by the CRJs as part of the distribution of the 2004-2005 cable royalty funds (Federal Register, Vol. 75, September 17, 2010, p. 57067).<sup>10</sup> In contrast, the Horowitz survey merely instructed respondents with WGNA systems as follows: "Please do not assign any value to programs that are substituted for WGN's blacked out programming" (Horowitz, Appendix A, p. 36). Cable system operators, however, have no reason to know which programs on WGNA are or are not substituted for blacked-out programming of the local WGN-Chicago station (see Written Rebuttal Testimony of James M. Trautman, pp. 14-15; Written Rebuttal Testimony of Allan Singer, p. 8).

41. Of particular importance is the fact that all of the non-compensable programming on WGNA falls within the Program Suppliers and Devotional categories (Written

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<sup>10</sup> I note that the list of compensable programs and hours of airtime were only sent to those systems for which WGNA was their only distant signal. Systems for which WGNA was one of two or more distant signals did not receive this information.

Rebuttal Testimony of James M. Trautman, p. 14). To the extent that the respondent does not fully understand and differentiate between compensable and non-compensable programs, the relative valuations for the Program Suppliers categories (movies, syndicated series, and “other” sports) as well as the Devotional category will be upwardly biased. Hence, I find that the methodology used by Bortz for WGNA-only (in which compensable programs were clearly delineated for the respondent) would lead me to conclude that for WGNA-only stations, the Bortz estimates would provide a more valid estimate of relative program valuations.<sup>11</sup>

**C. Addition of “Other Sports Programming” Category**

42. Another key difference between the Bortz and Horowitz surveys is the inclusion of an “Other sports” program category in the Horowitz survey. Treating a category as minor as “other sports” in the same manner as program categories such as “movies” and “live professional and college sports” suggests to the respondent that the category is significant and on par with the other seven categories. I agree with Mr. Trautman’s assessment that the provision of these misleading examples would lead to inflated estimates of the relative value of “other sports.” For example, if we look at those systems that retransmitted WGNA as their only commercial distant signal during 2010-2013, we see responses in the Horowitz data that are illogical, given the fact that WGNA carried less than two hours each year of compensable “Other Sports” (Trautman Written Rebuttal Testimony, p. 17). For example, in 2013, one of the responding CSOs assigned relative

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<sup>11</sup> I note that for those cable systems for which WGNA is one of two or more distant signals carried, neither Bortz nor Horowitz provided respondents with a list of compensable programs. For those “WGNA-plus” systems, the Bortz surveys provide a more valid estimate of relative program valuations than the Horowitz surveys due to the flaws in the Horowitz WGNA-plus surveys discussed herein, such as the use of misleading and inaccurate program examples and the inappropriate addition of an “Other Sports” category.

valuations of '25' for both Live Team Sports and "Other Sports." Other examples include three responding CSOs that each valued Live Team Sports at '40' and "Other Sports" at '30' despite the fact that the only compensable "Other Sport" broadcast was a single one-hour horse race ("The Arlington Million") (Trautman Written Rebuttal Testimony, p. 17).

**D. Respondent Selection**

43. The Bortz and Horowitz data collection methodologies differed in their approach to identifying the respondent of interest and how interviews were conducted. For the Bortz study, interviewers sought to interview the individual "most responsible for programming carriage decisions" (Bortz, pp. 14-15). As noted by Bortz, "In attempting to reach this individual, the interviewer was frequently referred to a regional executive" (p. 15). As such, Bortz often began at the CSO level to identify the person responsible for programming and moved up to a regional executive when necessary. The Bortz approach of starting at the CSO level limited the number of cable systems for which a single executive served as a respondent to a maximum of eleven, with the average number of CSOs for which a respondent reported ranging between 2 (2011) and 2.4 (2010) and the modal number of responses being 1 (that is, most respondents only responded for one system) (Trautman Written Rebuttal Testimony, Table A-4).

Moreover, when the same individual was selected to report on multiple cable systems, he or she was administered a separate questionnaire for each system so as to focus solely on a single cable system at a time.

44. The Horowitz survey methodology also calls for the selection of "the executive with the decision-making authority over the carriage of distant broadcast signals for each CSO in our sample" (Horowitz, p. 5). However, in contrast to the approach used by

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Bortz, the methodology used by Horowitz begins at the top of the decision making process, often at the MSO level. As a result, some respondents had significant response burden, being asked to report on an extremely large number of cable systems. For example, we see that in 2013 the AT&T MSO includes 60 CSOs in the universe of systems surveyed by Horowitz, and that a single executive was interviewed with respect to all 60 CSOs (Horowitz, Appendix B, p. 41). Focusing on the Horowitz sample systems, the number of cable systems for which a single executive provided data was as high as 38 (in 2013).<sup>12</sup> Also in contrast to the Bortz methodology, in the Horowitz survey, when a single executive was responsible for multiple systems and each of those systems had the same distant channel lineup, then only a single survey was administered. (Horowitz, p. 8).

45. For these reasons, the Horowitz methodology places excessive burden on the selected respondent. For the Horowitz survey, an executive was asked to report not only about those cable systems selected for the sample, but also for all systems for which he or she was responsible in the *entire universe* of Form 3 cable systems that transmitted a distant signal (Horowitz, p. 8). As a result, you see the extremely high number of cable systems for which an individual had to respond evident in the tables of Appendix B of the Horowitz report. Rather than focus on those CSOs that form the basis for the estimation, a respondent had to evaluate a much larger set of CSOs to determine his or her program relative valuations. The task as posed in the Horowitz survey (asking a single individual respondent about many CSOs either in a single interview or across multiple interviews

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<sup>12</sup> JSC\_2010\_2013\_Masked\_withDistantStations\_MSOchanges\_13July2017.xlsx.

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for those cases with different distant signals) would lead respondents to make summary judgments concerning valuations.

46. These summary judgments, in the case of multiple CSOs with the same distant signal, will reflect valuations for *sampled* CSOs as well as *non-sampled* CSOs since Horowitz asked respondents to report on the universe of all CSOs.

47. The pooling of multiple CSOs with the same distant signal lineup into a single questionnaire assumes that the valuation for those distant signals is the same, regardless of the population being served by those distant signals. Consider, for example, the case of WGNA, a distant signal that is transmitted throughout the country. One can imagine that interest in the Chicago sports teams or Chicago-related news may be greater in some parts of the country than others. To group all of the WGNA systems together in requesting relative program valuations makes an assumption about the equality of valuations for every cable system that offers WGNA (among those reported for by the same respondent). Addressing multiple systems in a single survey meant the respondents had to somehow provide a single valuation for signals carried across a large number of systems that were likely geographically diverse.

48. In addition to the burden related to reporting for multiple CSOs in a single interview, the Horowitz survey differs from the Bortz methodology in that executives were queried about *all* distant signals transmitted by each of the cable systems. Based on the data provided by Horowitz, the number of distant signals associated with any one cable system ranged from one to over fifty; respondents would have been queried about all of the distant signals transmitted by their respective cable system. In contrast, Bortz

limited the number of distant signals for which a respondent had to report to eight (Bortz, p. 33-36).

49. As a result of their data collection approach, the Horowitz data are populated by a relatively small number of respondents. Table 1 shows the number of CSOs, the number of respondents, and the concentration of CSO responses for the Horowitz data. See also Trautman Written Rebuttal Testimony, Table A-4.

Table 1. Number of CSOs, Respondents, and Measures of Respondent Concentration, by Year, Horowitz Data

Year	Number of CSOs for which there are sample data	Number of respondents providing data for the CSOs in Column 2	Number of respondents reporting for 10+ CSOs	Percentage of data accounted for by the respondents in Column 4	Percent of data accounted for by the top 2 respondents
2010	123	31	3	42.4%	32.6%
2011	182	43	4	37.8%	25.2%
2012	228	42	8	58.9%	26.8%
2013	200	41	7	62.0%	29.0%

Source: Trautman Written Rebuttal Testimony, Table A-4.

As is evident from the table, especially for 2012 and 2013, a small number of individuals account for a large percentage of the data. And, as is evident from the final column of Table 1, in each year, two respondents account for more than a quarter of the data. The concentration of data exhibited in Table 1 is detrimental for two reasons: (1) the observations in the data are clearly not independent and should not be treated as such in the calculation of means and standard errors; and (2) with only two respondents accounting for over 25% of the data each year, these individuals can have an undue influence on the final estimates.

50. According to the methodology described by Horowitz (p. 8), when cable systems offered the same mix of distant signals, executives were to be interviewed once

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concerning all of the similar CSOs. However, when I examine the data for a single respondent in a given year, I also find identical program valuations across CSOs with *varying* distant signals. For example, in 2013, looking only at the *sample* data used in estimation, respondent 54 (as identified in the Program Suppliers' data) provided information on 38 different cable systems.<sup>13</sup> For 15 of these 38 cable systems, the program valuations were as follows:

- News: 0% valuation
- Syndicated Series: 30%
- Movies: 15%
- Live Sports: 5%
- Other Sports: 0%
- Devotional: 0%
- Public Television (PTV): 50%
- Canadian: No valuation

However, the distant signals carried by these 15 cable systems varies, with no two cable systems offering the same mix of distant signals. It is quite surprising that this executive produced the *exact same valuations* for each of these 15 cable systems carrying different line-ups—assuming that he or she was interviewed separately about each system. Nor is this an isolated example; I see the same pattern of identical valuations for executives required to report for multiple cable systems across all four years of data.<sup>14</sup> These repeated identical responses regarding systems with non-identical signal lineups raise questions as to whether the survey protocol for separate questionnaires was in fact

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<sup>13</sup> JSC\_2010\_2013\_Masked\_withDistantStations\_MSOchanges\_13July2017.xlsx.

<sup>14</sup> The example provided above is with respect to the repetition seen among those cases identified as part of the Horowitz sample (used for estimation by Dr. Frankel). The pattern of identical reporting across cable systems is even more evident when one looks at the full universe of systems for which a single executive was asked to report.

correctly implemented—or whether some respondents employed “short-cuts” in response to the burden of being asked to respond for numerous systems.

**E. Summary of Horowitz Survey’s Design Problems**

51. The survey as designed and implemented by Dr. Horowitz and which forms the basis of the estimates provided by Dr. Frankel is fraught with problems. These problems include, but are not limited to:

- The extensive use of misleading and incorrect examples in the program category descriptions as well as the inconsistent use of the “such as” program examples;
- The failure to provide information identifying compensable programs on WGNA;
- The addition of an inappropriate “other sports programming” category;
- The consolidation of surveys in which a respondent was queried about multiple systems simultaneously; and
- The implementation of a data collection methodology that was excessively burdensome in that it requested respondents to report not only on sampled cable systems but all cable systems as well as reporting for *all* distant signals associated with each of the cable systems.

The extent of the misinformation provided as examples or as subcategories of programs (“such as”) in the program category descriptions and the inconsistent use of examples and subcategories raises serious questions as to the validity of the responses and resulting estimates of program category valuations. Diamond (2011) notes that “[w]hen unclear questions are included in a survey, they may threaten the validity of the survey by systematically distorting responses if respondents are misled in a particular direction, or by inflating random error if respondents guess because they do not understand the



question” (p. 388). In this case, I believe that the provision of misinformation (exacerbated by the failure to provide information related to compensable programming) is sufficiently egregious as to reject the estimates of relative valuations resulting from the Horowitz survey. As a result of the issues I have outlined above, the Horowitz data provide neither a valid or reliable basis on which to estimate program valuations.

**F. Data Adjustments**

52. For those cable systems for which PBS was the only distant signal, the Horowitz questionnaire asks the following: “Considering the value of the programs broadcast only on PBS station (INSERT PBS STATIONS) to your cable system, what percentage, if any, of the fixed dollar amount would you allocate for this type of programming” (Horowitz, Appendix A, p. 36). PBS-only cable system executives were not instructed that the value of their estimate needed to add to 100%.

53. The question, as posed, is confusing, because how is an executive to value a program category relative to other categories if the cable system only offers programming in a single category, in this case, PBS? Regardless, the questionnaire does allow respondents to provide answers less than 100%. Such answers are clearly evident in the Horowitz survey responses. There are several<sup>15</sup> cases for which PTV-only systems reported valuations less than 100% for the PTV category. For example, in 2012, the relative program valuations for the 20 PTV-only systems range from 2% to 75%. However, it appears that Dr. Frankel adjusted these values to equal 100% (see, for

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<sup>15</sup> See JSC\_2010\_2013\_Masked\_withDistantStations\_MSOchanges\_13July2017.xlsx. In 2010, 3 of the 15 (20%) of the PTV-only cable systems had valuations less than 100%; in 2011, 28 of the 28 (100%) of the PTV-only cable system had valuations less than 100%; in 2012, 20 of the 20 (100%) PTV-only cable systems had valuations less than 100%; and in 2013, 20 of the 20 (100%) of the PTV-only stations had valuations less than 100%.

example, the “reproportion” line of code in MPAA\_2012.f90). Dr. Frankel provides no justification for altering the reported valuation.

**G. Comparison of Statistical Estimates**

54. The CRJs have in prior distribution orders cited the importance of focusing on confidence intervals around an estimate as opposed to strict adherence to the point estimates (Federal Register, Vol. 75, September 17, 2010, pp. 57066, 57068). Table IV-2 of the Bortz report provides 95% confidence intervals for the seven program categories used in the Bortz survey.

55. Dr. Frankel in his written direct testimony provides standard errors for the estimates derived from the Horowitz survey, rather than 95% confidence intervals. In order to provide an apples-to-apples comparison of the two sets of estimates, I have set forth below the point estimates, the margin of error<sup>16</sup>, and the 95% confidence intervals for the Horowitz-based surveys, along with the 95% confidence intervals produced in Table IV-2 of the Bortz report.

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<sup>16</sup> Margin of error = standard error of the estimate x 1.96, where 1.96 is the value corresponding to an alpha level of .05, that is, a 95% confidence level.

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Table 2. Point Estimates, Margin of Error and 95% Confidence Intervals for Distant Signal Programming Valuation, by Programming Type, Survey Organization, and Year (95% confidence interval in parentheses)

	<b>Bortz</b>	<b>Horowitz</b>
<b>2010</b>		
Live professional and college team sports	40.9% ± 1.6% (39.3% - 42.5%)	31.9 ± 4.25 (27.7% - 36.2%)
Other sports	N/A	6.8% ± 1.3% (5.5% - 8.0%)
News and public affairs	18.7% ± 1.2% (17.5% - 19.9%)	12.4% ± 2.9% (9.5% - 15.3%)
Movies	15.9% ± 0.7% (15.2% - 16.6%)	17.2% ± 2.3% (14.9% - 19.4%)
Syndicated shows, series and specials	16.0% ± 1.0% (15.0% - 16.9%)	20.3% ± 3.3% (16.9% - 23.6%)
PBS and all other programming on non-commercial signals	4.4% ± 0.9% (3.6% - 5.3%)	7.7% ± 3.3% (4.4% - 11.0%)
Devotional and religious programming	4.0% ± 0.4% (3.6% - 4.4%)	3.8% ± 1.5% (2.3% - 5.3%)
All programming on Canadian signals	0.1% ± 0.1% (0.0% - 0.2%)	0.0% ± 0.0% (0.0% - 0.0%)
<b>2011</b>		
Live professional and college team sports	36.4% ± 1.4% (34.9% - 37.8%)	27.1% ± 3.0% (24.1% - 30.1%)
Other sports	N/A	10.8% ± 1.6% (9.3% - 12.3%)
News and public affairs	18.3% ± 1.2% (17.1% - 19.6%)	12.9% ± 2.0% (10.9% - 14.8%)
Movies	18.6% ± 0.9% (17.7% - 19.5%)	11.4% ± 1.6% (9.9% - 13.0%)
Syndicated shows, series and specials	17.4% ± 1.0% (16.3% - 18.4%)	17.6% ± 2.1% (15.5% - 19.7%)
PBS and all other programming on non-commercial signals	4.7% ± 0.9% (3.9% - 5.6%)	13.3% ± 3.3% (10.1% - 16.6%)
Devotional and religious programming	4.5% ± 0.4% (4.1% - 4.9%)	5.9% ± 1.3% (4.6% - 7.2%)
All programming on Canadian signals	0.2% ± 0.1% (0.0% - 0.3%)	1.0% ± 1.7% (0.0% - 2.7%)

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<b>2012</b>		
Live professional and college team sports	37.9% ± 1.8% (36.1% - 39.7%)	25.5% ± 2.9% (22.6% - 28.4%)
Other sports	N/A	9.0% ± 1.3% (7.7% - 10.3%)
News and public affairs	22.8% ± 1.0% (21.8% - 23.8%)	15.7% ± 1.7% (14.0% - 17.4%)
Movies	15.3% ± 0.8% (14.5% - 16.1%)	12.1% ± 1.4% (10.7% - 13.6%)
Syndicated shows, series and specials	13.5% ± 0.6% (12.9% - 14.1%)	16.0% ± 2.0% (14.0% - 18.0%)
PBS and all other programming on non-commercial signals	5.1% ± 0.8% (4.3% - 5.9%)	15.1% ± 3.6% 11.5% - 18.6%
Devotional and religious programming	4.8% ± 0.4% (4.4% - 5.2%)	5.7% ± 0.8% (5.0% - 6.5%)
All programming on Canadian signals	0.6% ± 0.6% (0.1% - 1.2%)	0.9% ± 0.7% (0.2% - 1.6%)
<b>2013</b>		
Live professional and college team sports	37.7% ± 1.2% (36.4% - 38.9%)	35.3% ± 9.5% (25.8% - 44.8%)
Other sports	N/A	7.4% ± 1.5% (5.9% - 8.9%)
News and public affairs	22.7% ± 1.0% (21.7% - 23.6%)	9.5% ± 2.0% (7.6% - 11.5%)
Movies	15.5% ± 0.8% (14.7% - 16.2%)	12.4% ± 2.5% (9.9% - 14.9%)
Syndicated shows, series and specials	11.8% ± 0.7% (11.0% - 12.5%)	16.3% ± 3.1% (13.1% - 19.4%)
PBS and all other programming on non-commercial signals	6.2% ± 0.8% (5.4% - 7.0%)	15.4% ± 6.6% (8.8% - 22.0%)
Devotional and religious programming	5.1% ± 0.3% (4.8% - 5.4%)	3.5% ± 0.9% (2.6% - 4.3%)
All programming on Canadian signals	1.2% ± 0.9% (0.4% - 2.1%)	0.4% ± 0.3% (0.1% - 0.6%)

Note: Data sources for Table 2 include Direct Testimony of Martin R. Frankel, Tables 5-8 (pp. 8 and 9) for the Horowitz column and Tables IV-1 (p. 42), IV-2 (p. 44), and Appendix D (pp. D-8 through D-11) for the Bortz column. Computation of margin of error and the 95% confidence interval for the Horowitz data computed by N. Mathiowetz based on the standard errors presented by Dr. Frankel. All estimates rounded to one significant digit. In 2010, the Horowitz estimate for all programming on Canadian Signals was 0.01% which rounds to 0.0% as presented in this table.

56. Looking only at the data for 2013 (for illustrative purposes), we see significant differences in the valuations for news and public affairs, syndicated shows, series, and specials, PTV, and devotional programming. The wider confidence intervals seen in the Horowitz-produced data renders several of the comparisons non-significant. For example, looking at live professional and college team sports for 2013, the 95% confidence interval produced from the Bortz data is 36.4% to 38.9%—a spread of  $\pm 1.2$  percentage points—whereas the interval produced from the Horowitz data is 25.8% to 44.8%—a spread of  $\pm 9.5$  percentage points.

**V. THE FORD/RINGOLD SURVEY DOES NOT PROVIDE A RELIABLE BASIS FOR ALLOCATING RELATIVE VALUE TO CANADIAN PROGRAMMING**

57. The written direct testimony of Debra J. Ringold summarizes the methodology and estimates resulting from the Ford/Ringold survey of U.S. cable system operators who retransmitted Canadian television stations as distant signals in 2010 through 2013. The Ford/Ringold survey design is similar to that used by Bortz and Horowitz in which a sample of cable system operators are interviewed about the relative value the operator would assign to categories of programs using a constant sum methodology. However, there are significant differences with respect to the sample design and the precision of the estimates between the Ford/Ringold survey and the Bortz survey.

58. The Ford/Ringold design indicates that CSOs were interviewed about “one Canadian signal randomly chosen from those Canadian signals retransmitted” (CCG-6, p. 4) but no information is provided as to how the signal was selected. It appears that the sample design of for the Ford/Ringold survey gave preference to French-language signals (“If cable systems were found to retransmit both an English-language and French-

language Canadian signal, the system was interviewed with the French-language version of the questionnaire, due to the smaller number of French-language systems” CCG-6, p. 6). As a result of this preference, the resulting analytic sample over-represents French-language systems. Whereas French-language stations accounted for about 21% of distant subscriber instances in 2013 (see CCG-1, Table 1 and Table 2, pp. 2-3, 5), the composition of the Ford/Ringold analytic sample consists of between 36% to 55% French-Language systems (computation based on data provided in CCG-6, Table 5 and CCG-6, Table 6).<sup>17</sup>

59. Diamond (2011) asks, “Does the sample approximate the relevant characteristics of the population?” In the case of the Ford/Ringold sample design, the analytic sample clearly over-represents a segment of the population, that is the French-language stations.

60. Diamond (2011) also notes that “all sample surveys produce estimates of population values, not exact measures of those values” (p. 381). One factor that affects the margin of error around a survey estimate is the size of the analytic sample. In the case of the study completed by Drs. Ford and Ringold, the sample sizes are extremely small, leading to large 95% confidence intervals for those estimates. Listed below are the estimates for the average value of the programming reported by Drs. Ford and Ringold in Table 1 (CCG-6, p. 15) for the “live professional and college team sports” category. Table 3 includes my computation of the standard errors as well as the 95% confidence interval of the estimates, under the assumption of a simple random sample.

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<sup>17</sup> Specifically for 2010-2013, the proportion of French-Language Canadian Signals in the Ford/Ringold analytic sample is 38% (8 of 21), 44% (8 of 18), 36% (5 of 14) and 55% (6 of 11), respectively.

Table 3. Average Value of Live Professional and College Team Sports Shown on Canadian Signals with Standard Errors and 95% Confidence Intervals

Year	Estimate produced by Drs. Ford and Ringold (Table 1) (Sample size in parentheses)	Standard Deviation produced by Drs. Ford and Ringold (Table 1)	Standard Error of the Estimate	95% Confidence Interval (based on the standard error of the estimate)
2010	26.67 (21)	18.05	3.94	18.45 to 34.88
2011	14.72** (18)	9.92**	2.35**	10.14 to 19.30**
2012	21.07 (14)	21.23	5.67	8.81 to 33.33
2013	20.91 (11)	17.72	5.34	9.01 to 32.83

\*\* My analysis of the Ford/Ringold data indicates that for 2011, the average value of live professional and college team sports is 15.52 with a standard deviation of 10.26, a standard error of 2.34 and a 95% confidence interval of 10.58 to 20.47

61. Two points of interest. First, Drs. Ford and Ringold produced standard deviations of the estimates, not standard errors. A standard deviation measures the dispersion of a set of data whereas a standard error is a measure of the reliability of an estimate. The two measures are related in that the standard error of an estimate is equal to the standard deviation of the estimate divided by the square root of the sample size. The 95% confidence interval, as described by Diamond (2011) “means that if 100 samples of the same size were drawn, the confidence interval expected for at least 95 of the samples would be expected to include the true population value” (p. 381). It does not mean that one is 95% confident that the true population value falls within the range provided. Second, in contrast to the Bortz survey, we see that the small sample size for the

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Ford/Ringold survey leads to highly unreliable estimates (that is, wide confidence intervals).

62. The over-representation of French-speaking channels, coupled with the unreliable estimates, render the data from the Ford/Ringold study to be of little to no utility with respect to the issue of relative market value of Canadian programming on Canadian distant signals retransmitted by cable system operators in the United States.

63. Beyond the problems outlined above, a secondary issue with respect to the report of Drs. Ford and Ringold is the production of importance estimates for programming on TBS, U.S. superstations, and U.S. independent stations. Drs. Ford and Ringold note that the assessment of the relative importance of programming on these stations was conducted "to reduce the chances that respondents would guess the survey purpose or sponsor" (CCG-6, p. 4). Although I am supportive of the goal of masking the survey's purpose and sponsorship to respondents, the introduction of program categories that differ from those related to the primary purpose of the study adds unnecessarily to the cognitive burden of the respondents. Rather than simply reporting on the one constant sum question of interest before the CRJs, respondents to the Ford/Ringold survey were queried with respect to (up to) three different sets of program categories. This additional burden was unnecessary and may have led to confusion on the part of the respondents when reporting on the key question of interest, the relative programming value for Signal B stations.

64. Grouping together superstations such as WGN and WPIX with the cable network TBS likely led to additional confusion. Apart from the fact that TBS is not a distant signal, several of the program categories included in the constant sum question for



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Signal A cable systems are irrelevant to TBS (news, children's programming, and devotional categories). Asking respondents to report on the relative value of programming that is not even offered would most likely further confuse respondents. According to the data produced by Drs. Ford and Ringold, of the 42 times that respondents were queried about a "superstation," 68.9% of the respondents were answering the questions with respect to TBS.

65. Similar to the estimates for the Canadian distant signals, the estimates for superstations (Table 2, CCG-6, p. 16) and independent stations (Table 3, CCG-6, p. 17) are based on very small sample sizes and are therefore subject to wide confidence intervals (unreliable estimates). Table 4 provides the standard errors and 95% confidence intervals for the live professional and college team sports based on the means and standard deviations produced by Drs. Ford and Ringold.

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Table 4. Average Value of Live Professional and College Team Sports Shown on “superstations” and independent stations with Standard Errors and 95% Confidence Intervals

Year	Estimate produced by Drs. Ford and Ringold (Table 2 or 3) (Sample size in parentheses)	Standard Deviation produced by Drs. Ford and Ringold (Table 2 or 3)	Standard Error of the Estimate	95% Confidence Interval (based on the standard error of the estimate)
<b>Superstation Estimates</b>				
2010	35.00 (19)	20.75	4.76	25.67 to 44.33
2011	26.76 (17)	11.58	2.81	21.26 to 32.26
2012	19.64 (14)	12.32	3.29	13.19 to 26.09
2013	23.50 (10)	16.17	5.11	13.48 to 33.52
<b>Independent Estimates</b>				
2010	16.25 (4)	17.97	8.99	-1.37 to 33.87
2011	25.00 (5)	16.58	7.41	10.47 to 39.53
2012	24.00 (5)	4.18	1.87	20.33 to 27.66
2013	31.67 (3)	14.43	8.33	15.34 to 48.00

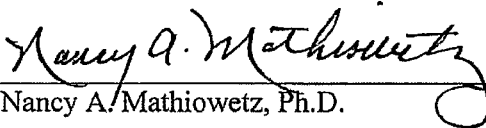
Note: Standard errors and confidence intervals produced for comparison purposes only. It is my usual practice to not produce estimates or confidence intervals when the number of observations within a cell is below n=20.

Similar to the estimates of Canadian distant signals, the unreliability of the estimates renders them uninformative with respect to understanding program valuations for superstations and independent stations.

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I declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_ September 14, 2017.

  
Nancy A. Mathiowetz, Ph.D.



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Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.

<hr/>	)	
<i>In re</i>	)	
	)	
DISTRIBUTION OF CABLE	)	NO. 14-CRB-0010-CD (2010-13)
ROYALTY FUNDS	)	
<hr/>	)	

Written Rebuttal Testimony of  
DR. WILLIAM E. WECKER AND R. GARRISON HARVEY

September 15, 2017

**I. QUALIFICATIONS**

**Dr. William E. Wecker**

I am a statistician and applied mathematician. I received the Bachelor of Science degree (Basic Sciences) from the United States Air Force Academy. I received both the Master of Science degree (Operations Research) and Doctor of Philosophy degree (Statistics and Management Science) from the University of Michigan. I have served on the faculties of the University of Chicago, the University of California, Davis, and Stanford University where I taught statistics and applied mathematics at the graduate level. I have performed research in statistical theory, statistical methods, and applied mathematics for over four decades.

I am currently President of William E. Wecker Associates, Inc., an applied mathematics consulting firm located in Jackson, Wyoming. I am a member of the American Statistical Association, the Institute of Mathematical Statistics, and the Society for Risk Analysis. I have served as associate editor of the Journal of the American Statistical Association for four years and of the Journal of Business and Economic Statistics for eighteen years. A copy of my curriculum vitae is attached in Appendix A.

**R. Garrison Harvey**

I am a statistician and applied mathematician. I received the Bachelor of Science degree (Applied Mathematics) from the United States Air Force Academy and the Master of Science degree (Operations Research) from the Air Force Institute of Technology. I am currently Vice President and Principal Consultant at William E. Wecker Associates, Inc. I devote much of my practice to understanding and evaluating complex datasets and performing complex statistical analyses, including multiple regressions. I have served as an expert witness in litigation and arbitration in matters evaluating damages, breach of contract, copyright infringement, consumer

product performance, epidemiology, sample design, credit card market analysis and profitability, statistical analysis of credit card industry data, and class certification. Additionally, I have worked as a consultant on many litigations and business consulting engagements including: antitrust matters involving price-fixing; false advertising; unfair competition and monopolization; consumer product safety and performance; environmental damage; class actions alleging disparate impact in insurance; insurance claims; lending and wages; patent and intellectual property matters involving pharmaceutical drugs, petrochemical formulation, and automobile devices. These qualifications and a list of my professional publications are in my curriculum vitae attached as Appendix B.

## **II. Purpose of Testimony and Conclusions**

The Joint Sports Claimants requested William E. Wecker Associates, Inc. to review the Corrected Testimony of Jeffrey S. Gray, Ph.D., which he submitted in this proceeding on April 3, 2017. Our objective was to determine how Dr. Gray arrived at the estimates in Table 1 and Table 2 of that testimony and whether the data, approaches, and analyses underlying his testimony supported those estimates. Table 1 purports to show the relative “volume” of different categories of broadcast television programming that cable system operators (CSOs) retransmitted during the years 2010 through 2013 pursuant to the Section 111 statutory license. Table 2 purports to show the relative “distant viewing” of those program categories during the same years.

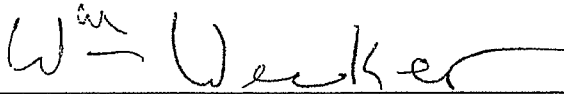
A copy of our report analyzing Dr. Gray’s testimony is attached. Based upon our analysis of Dr. Gray’s testimony and underlying data and for the reasons explained in our report, we conclude that: (1) Dr. Gray’s Table 1 estimates do not accurately reflect “the volume of

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programming purchased by the CSOs," as Dr. Gray claims; and (2) Dr. Gray's Table 2 estimates of "distant viewing" are unreliable and invalid.

We declare under penalty of perjury that the foregoing is true and correct.

Executed on September 14, 2017.

A handwritten signature in cursive script, appearing to read "W. E. Wecker", written over a horizontal line.

William E. Wecker, Ph.D.

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R. Garrison Harvey



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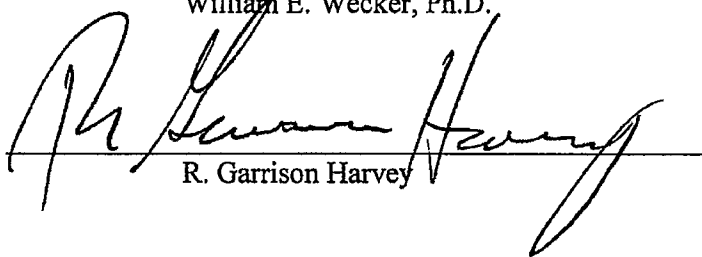
programming purchased by the CSOs,” as Dr. Gray claims; and (2) Dr. Gray’s Table 2 estimates of “distant viewing” are unreliable and invalid.

We declare under penalty of perjury that the foregoing is true and correct.

Executed on September 14, 2017.

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William E. Wecker, Ph.D.



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R. Garrison Harvey

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## **Appendix A**

May 2017

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**EDUCATION**

B.S. Basic Science, U.S. Air Force Academy (1963)  
M.S. Operations Research, University of Michigan (1970)  
Ph.D. Statistics and Management Science, University of Michigan (1972)

**EMPLOYMENT**

1963-1967 Fighter pilot, U.S. Air Force  
1968-1969 Chief of Protocol, U.S. Air Force, Berlin, Germany  
1970-1972 Graduate Student, University of Michigan  
1973-1976 Assistant Professor, Graduate School of Business, University of Chicago  
1977-1983 Associate Professor, Graduate School of Business, University of Chicago  
1984-1985 Associate Professor, Graduate School of Management, University of California, Davis  
1985-1989 Professor, Graduate School of Management, University of California, Davis  
1994-1998 Consulting Professor of Law, School of Law, Stanford University  
1990- President, William E. Wecker Associates, Inc.

**ACTIVITIES**

1977-1981 Associate Editor (Theory and Methods), Journal of the American Statistical Association  
1981-1999 Associate Editor, Journal of Business and Economic Statistics  
1990-1992 Management Committee, Journal of Business and Economic Statistics  
1976-1994 Seminar Leader, NSF/NBER Seminar on Time Series Analysis  
1993-1994 National Advisory Council on Environmental Policy and Technology  
(Lead Subcommittee)  
Member of: American Association for the Advancement of Science  
American Statistical Association  
Institute of Mathematical Statistics  
Society for Risk Analysis

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### PUBLICATIONS

- "A Nonparametric Approach to the Construction of Prediction Intervals for Time Series Forecasts" (with W. A. Spivey), Proceedings of the Business and Economic Statistics Section--American Statistical Association, 1972.
- "Regional Economic Forecasting: Concepts and Methodology" (with W. A. Spivey), The Regional Science Association Papers, Vol. 28, 1972, pp. 257-276.
- "On the Weighted Average Cost of Capital" (with R. R. Reilly), Journal of Financial and Quantitative Analysis, January 1973, Vol. VIII, pp. 123-126.
- "On Random Walks with Absorbing Barriers" (with Thomas E. Morton), Proceedings of the Business and Economic Statistics Section-- American Statistical Association, 1973.
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## **Appendix B**

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January, 2017

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ANALYSIS OF

WRITTEN DIRECT TESTIMONY OF JEFFREY S. GRAY, PH.D.

IN THE 2010-13 CABLE ROYALTY DISTRIBUTION PROCEEDING  
BEFORE THE COPYRIGHT ROYALTY JUDGES

By

William E. Wecker, Ph.D.  
R. Garrison Harvey

September 15, 2017

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## I. INTRODUCTION AND SUMMARY

1. We understand that Section 111 of the Copyright Act grants cable system operators (“CSOs”) a “statutory license” to retransmit the copyrighted programming on out-of-market (distant) broadcast television stations. To qualify for this license, the CSOs must pay statutorily-prescribed royalty fees, which are collected by the U.S. Copyright Office. The Copyright Royalty Judges (“Judges”) allocate the Section 111 royalties among claimant groups that represent different categories of retransmitted programming, as identified in the Judges’ November 25, 2015 order in this proceeding (“Agreed Categories”).<sup>1</sup> We further understand that in allocating royalties, the Judges employ a relative market value standard, *i.e.*, they seek to determine what the CSOs would have paid, on a relative basis, for each of the Agreed Categories in a free market with no statutory license.

2. In the proceeding to allocate the 2010-13 cable royalties, Jeffrey S. Gray, President of Analytics Research Group, LLC, has submitted written testimony to the Judges on behalf of one of the claimant groups, Program Suppliers.<sup>2</sup> Table 1 of Gray’s testimony purports to show the “volume” of programming that CSOs retransmitted during the years 2010 through 2013. Table 2 purports to show the “distant viewing” of that programming. Gray states that his “volume” calculations are “imperfect” measures of relative market value of the Agreed Categories while his “viewership shares correspond to reasonable cable royalty shares” for those program categories.<sup>3</sup> Notably, however, there is relatively little difference between Gray’s “volume” estimates and his “viewership estimates.” Each Agreed Category would receive roughly the same royalty

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<sup>1</sup> The Agreed Categories are Canadian Claimants, Commercial Television (“CTV”), Devotionals, Program Suppliers, Public Television (“PTV”), and Joint Sports Claimants (“JSC”).

<sup>2</sup> Testimony of Jeffrey S. Gray, Ph.D. (as corrected April 3, 2017) (“Gray Testimony”).

<sup>3</sup> Gray Testimony, ¶38.

share (within a few percentage points) whether based on his “volume” estimates or his “viewership estimates.”

3. The Joint Sports Claimants<sup>4</sup> requested that William E. Wecker Associates, Inc. review the Gray testimony. Our analysis determined how Gray arrived at the estimates in Table 1 and Table 2 and assessed whether the data and methods used by Gray are a valid basis of support for those estimates. While Gray describes the general approach he followed in preparing Tables 1 and 2, he does not describe precisely how he arrived at the Tables 1 and 2 estimates. By examining the computer programs and databases underlying Gray’s testimony we were able to determine the details of his calculations, the limitations of the data upon which he relied, and the several unstated assumptions he made when he manipulated that data in order to arrive at the bottom-line numbers in Tables 1 and 2.

4. Based upon our analysis of Gray’s testimony and underlying data as well as other relevant materials discussed below, we conclude that: (1) Gray’s Table 1 estimates do not accurately reflect “the volume of programming purchased by the CSOs,” as Gray claims; and (2) Gray’s Table 2 estimates of “distant viewing” are unreliable and invalid. We have corrected Gray’s Table 1 calculations — the corrections appear in Table 2 below. However, a correction is not possible for the Gray Table 2 estimates because Table 2 relies upon data that cannot properly be used to measure “distant viewing” and Gray’s regression techniques do not resolve the underlying issues with the data.

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<sup>4</sup> The Joint Sports Claimants are the Office of the Commissioner of Baseball, the National Football League, the National Basketball Association, the Women’s National Basketball Association, the National Hockey League and the National Collegiate Athletic Association.

**II. GRAY STATES THAT HIS “VIEWERSHIP” ESTIMATES PROVIDE A BETTER MEASURE OF RELATIVE MARKET VALUE THAN HIS “VOLUME” ESTIMATES BUT THERE IS LITTLE DIFFERENCE BETWEEN THESE TWO ESTIMATES**

5. Relying upon data provided by the Cable Data Corporation (“CDC”) and Gracenote, Inc.<sup>5</sup> (“Gracenote”) as well as an algorithm he devised, Gray estimates what he describes as the “volume of programming purchased by the CSOs” during 2010-13 and each of the Agreed Categories’ shares of that “volume.” He reports his estimates in Gray Table 1, “Levels and Shares of Retransmissions and Volume by Royalty Year.”<sup>6</sup> Gray states that these estimates of “total volume of minutes of programming retransmitted by CSOs effectively represent[] the volume of programming purchased by the CSOs . . .” and that “program volume provides useful information concerning the relative value of programming to CSOs . . .”<sup>7</sup> According to Gray, the volume of programming retransmitted “provides an imperfect metric” of relative market value of the Agreed Categories.<sup>8</sup>

6. Gray then states that “viewership” estimates of “[a]udience size, which is determined through program viewership, is . . . the most direct measure of a program’s relative value” and that “the share of viewing minutes provides a superior measure of relative value.”<sup>9</sup> Gray describes his Table 2 estimates as the relative “viewership” during 2010-13 of each of the Agreed Categories using the data and algorithm noted above as well as data provided by The Nielsen Company (“Nielsen”) and his own statistical analysis of that data. He reports the results of his analysis in Gray Table 2, entitled

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<sup>5</sup> Gray also uses Canadian data from the Canadian Radio-television and Telecommunications Commission data (“CRTC”).

<sup>6</sup> Gray Testimony, ¶32.

<sup>7</sup> Gray Testimony, ¶¶17 & 18.

<sup>8</sup> Gray Testimony, ¶34; *see also* Gray Testimony, ¶22 (“relative volume of programming by claimant category . . . provides good, but imperfect, indicators of the relative value of the sets of programming at issue in this proceeding”).

<sup>9</sup> Gray Testimony, ¶¶19 & 34.

“Distant Viewing Levels and Shares by Royalty Year.”<sup>10</sup> According to Gray, the “viewership” shares in his Table 2 “correspond to reasonable cable royalty shares” and he urges the Judges to allocate the 2013 cable royalty funds according to those shares.<sup>11</sup>

7. While Gray distinguishes between the relevance of “volume” estimates and “viewership” estimates, his estimates of those two metrics show little difference, as set forth in Table 1 below. With the exception of the Devotional and PTV categories, all of the other Agreed Categories estimates are approximately the same (less than three percentage points difference) regardless of whether one focuses on “volume” or “viewership”; for the Devotional and PTV categories the difference is slightly greater — about 5.3 to 6.4 percentage points.

**Table 1: 2010-13 Gray Volume vs. Viewership Shares**

<b>Agreed Category</b>	<b>2010-13 Avg. Gray Volume Share</b>	<b>2010-13 Avg. Gray Viewership Share</b>	<b>Difference</b>
<b>Canadian Claimants</b>	1.1%	3.7%	2.6%
<b>CTV</b>	14.3%	13.5%	0.8%
<b>Devotionals</b>	7.9%	1.4%	6.4%
<b>Program Suppliers</b>	48.4%	45.5%	2.8%
<b>PTV</b>	27.7%	33.0%	5.3%
<b>JSC</b>	0.6%	2.9%	2.2%

### **III. GRAY TABLE 1 SHARE ESTIMATES DO NOT ACCURATELY REFLECT THE VOLUME OF COMPENSABLE DISTANT SIGNAL PROGRAMMING PURCHASED BY CSOS DURING 2010-13**

8. We explain below how Gray arrived at his “volume” estimates and why those estimates do not accurately reflect the “volume of programming purchased by CSOs,” as Gray claims. In sum, Gray fails to show the number of subscribers to whom the CSOs retransmitted the programming, and he fails to properly categorize certain JSC

<sup>10</sup> Gray Testimony, ¶38.

<sup>11</sup> Gray Testimony, ¶38.



programming. When these errors are corrected, the relative volume shares of each Agreed Category changes by approximately five percentage points or more, with the Program Suppliers' share dropping by approximately 17 percentage points.

#### **A. Gray's Sample Stations**

9. The calculations in Gray Table 1 (and Table 2) are based on a stratified random sample of broadcast stations ("Sample Stations"), rather than an analysis of all stations whose signals were retransmitted by CSOs during 2010-13. According to CDC, "Form 3" cable systems (those that paid approximately 97% of the 2010-13 cable royalties) retransmitted approximately 1240-1400 broadcast stations each year as distant signals during the period 2010-13. *See* Appendix A, Table A-1. Gray chose a stratified random sample of approximately 150 such stations each year,<sup>12</sup> approximately 11.4 percent of all retransmitted stations. *See* Appendix A, Table A-5. Stratification was based upon the number of cable subscribers who received those signals on a distant basis. For example, there were between 29 and 46 "Stratum 5" stations each year and Gray's sample included all (100%) of these stations. *See* Appendix A, Tables A-1, A-4. These "Stratum 5" stations reached the most distant subscribers (an average of 1.4 million subscribers per year).<sup>13</sup> *See* Appendix A, Table A-2. There were between 632 and 792 "Stratum 1" stations each year; Gray's sample only included approximately 2.8% of these stations. *See* Appendix A, Tables A-1, A-4. These "Stratum 1" stations reached the fewest distant subscribers (an average of 1,808 subscribers per year). *See* Appendix A, Table A-2.

<sup>12</sup> We are using the term "station" as synonymous with "call sign" as done by Gray in his Appendix B and footnote 22. For example, Gray treats CBUT and CBUT-DT as two stations.

<sup>13</sup> WGNA, a Stratum 5 station, reached by far the most distant subscribers with an average of 42 million distant subscribers. The average number of distant subscribers who received Stratum 5 stations excluding WGNA is 294,070 — this is more than 160 times ( $=294,070 / 1,808$ ) larger than the average distant subscribers of Stratum 1 stations.

10. Gray does not explain in his written testimony why he used a stratified sample tied to the number of distant subscribers. Presumably, however, he wanted to ensure that his volume and viewing calculations accounted for those stations that reached the most subscribers and contributed the most to the cable royalty funds.

#### **B. Gray's Program Categorizations**

11. Gray obtained the program schedules for each Sample Station from Gracenote, Inc. and CRTC. He reviewed those schedules to identify "compensable" programs on the stations. We understand that, for purposes of the cable royalty distribution proceedings, "compensable" programs are (1) "non-network" programs, *i.e.*, programs that were not distributed by the ABC, CBS or NBC broadcast networks; and (2) programs that aired on the satellite-delivered WGNA simultaneously with its broadcast by WGN, the local station available off-air in the Chicago market.<sup>14</sup> Based on our review of Gray's database and information provided by Bortz Media & Sports Group, Inc. identifying the compensable WGNA programming, Gray failed to include in his calculations many of the compensable Sports telecasts on WGNA.<sup>15</sup> The result of this Gray error is to understate the "volume" of JSC programming.

12. Gray assigned each compensable program to one of the Agreed Categories using an algorithm he devised as well as manual reviews of the programming.<sup>16</sup> Gray stated that he included all telecasts of Major League Baseball ("MLB") and National

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<sup>14</sup> Gray testimony, ¶27.

<sup>15</sup> There were 117, 109, 121, and 116 compensable Sports telecasts (Chicago Cubs, White Sox and Bulls games) on WGNA during 2010-13 respectively (source: "JSC Telecasts on WGNA and FOX.XLSX"). Gray is missing compensable Sports telecasts in each year 2010-13, he only included 114, 104, 55, and 42 on WGNA during 2010-13 respectively (source: "wgn\_compensable\_cubs\_bulls\_sox.xlsx"). Very few of the compensable Sports telecasts identified by Gray have any reported distant viewing according to the Lindstrom data (see Appendix C and D). However, those Sports telecasts had substantial viewing according to data provided by Nielsen to Major League Baseball. See ¶26 below.

<sup>16</sup> Gray testimony, ¶27, n.25.

Hockey League (“NHL”) games on Canadian stations in the Sports category.<sup>17</sup> However, based upon our review of his database, we found that Gray failed to include in the Sports category any of the MLB, NHL and National Basketball Association (“NBA”) telecasts, and all but two of the National Football League (“NFL”) telecasts,<sup>18</sup> on Canadian signals; Gray incorrectly placed all of this Sports programming in the Canadian category (i.e., non-JSC category). Gray, therefore, misclassified more than 99% of the more than 25,000 “records”<sup>19</sup> of Canadian sports broadcasts. The effect of this Gray error, like his failure to include compensable JSC programming on WGNA, is to understate the JSC volume share.

### C. Corrected Gray Table 1 “Volume” Estimates

13. Gray totaled the number of compensable minutes broadcast by the Sample Stations in each of the Agreed Categories for each of the years 2010-13. He then projected his calculations to the entire universe of broadcast television stations retransmitted by CSOs during each of those years using his sample weights. The results of these calculations and projections are set forth in Gray Table 1.<sup>20</sup>

14. Gray Table 1 shows that, for example, there were 501,885,381 “Minutes of Retransmissions” in 2010. We know from other data underlying Gray’s testimony that

<sup>17</sup> Gray testimony, ¶29.

<sup>18</sup> Only Super Bowl XLVI (2012) and Super Bowl XLVII (2013) are classified as JSC by Gray.

<sup>19</sup> For purposes of Gray’s analysis, a “record” is a compensable fifteen-minute segment of programming on one of the Sample Stations. See ¶21 below.

<sup>20</sup> The column labeled “Minutes of Retransmissions” shows the number of minutes of compensable programming by Agreed Category while the column labeled “Share of All Volume” shows each Agreed Category’s share of the total number of minutes of compensable programs retransmitted. In addition to the Gray estimate of “volume” of compensable broadcasts minutes, Table 1 also presents estimates of the number of compensable broadcast programs. The column in Gray Table 1 labeled “Retransmissions” reports the number of compensable programs by Agreed Category while the column labeled “Share of All Retransmissions” reports each Agreed Category’s share of the total number of compensable programs retransmitted. Gray’s Retransmissions calculations treat all programs the same, regardless of the amount of time that they were broadcast, e.g., a 30-minute sitcom is treated the same as a 3-hour MLB telecast.

CSOs retransmitted 1,239 broadcast television stations on a distant basis in 2010. Thus, Gray Table 1 estimates that, on average, each station contributes approximately 405,073<sup>21</sup> minutes (or equivalently 6,751 [=405,073/60] hours). Gray, therefore, is estimating that the 2010 “volume” equals the total number of minutes of compensable programming broadcast in 2010 by the 1,239 stations retransmitted by CSOs on a distant basis.

15. According to Gray, the “total volume of minutes of programming retransmitted by CSOs effectively represents the volume of programming purchased by the CSOs . . . .”<sup>22</sup> But Gray Table 1, although it also refers to “retransmissions,” ignores the number of distant subscribers that actually received the retransmissions. It treats all program broadcast minutes the same across all stations after adjusting for the probability of sampling each station — a minute of programming on WGNA, which reached over 40 million subscribers, is treated the same as station that reached only a few hundred subscribers; WGNA’s average share of predicted volume in Gray Table 1 is less than 0.02 percent in 2010, with even lower percentages for the years 2011-2013. Because they fail to account for the number of subscribers to which CSOs made the programs available, the Gray Table 1 estimates do not accurately represent the “volume of programming *purchased by CSOs*” (emphasis added). At best, and placing to one side the categorization errors noted above, Gray Table 1 reflects the volume of compensable programming minutes televised by distant signals without regard to the number of CSOs that retransmitted those minutes or the number of distant subscribers to which the signals were retransmitted.<sup>23</sup>

<sup>21</sup> 405,073 avg. minutes= 501,885,381 minutes /1,239 stations.

<sup>22</sup> Gray Testimony, ¶17.

<sup>23</sup> Written Rebuttal Testimony of Dr. Mark A. Israel, ¶¶33-36.

16. In Table 2 below, we have recalculated Gray's Table 1 "volume" share estimates to account for the number of distant subscribers that received the broadcast transmissions as well as the categorization errors discussed above.<sup>24</sup>

**Table 2: Corrected Gray "Volume" Shares<sup>25 26</sup>**

<b>Agreed Category</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Average</b>
Canadian Claimants	3.9%	5.4%	7.3%	7.7%	6.1%
Commercial Television	19.1%	19.1%	20.3%	18.0%	19.1%
Devotionals	4.3%	2.7%	1.5%	1.7%	2.6%
Program Suppliers	38.4%	32.6%	26.3%	28.7%	31.5%
Public Television	28.2%	34.4%	38.3%	36.9%	34.4%
JSC	6.0%	5.9%	6.3%	7.0%	6.3%

17. In Table 3 below, we compare the average 2010-13 volume shares from Gray's original Table 1 estimates to the corrected average 2010-13 volume shares in Table 2 above. As Table 3 reflects, accounting for the number of distant subscribers to which CSOs retransmitted programming in the Agreed Categories during 2010-13 (and correcting the mis-categorizations of Canadian sports programs and the missing WGNA compensable sports programs) changes each of the 2010-13 "volume" shares of the Agreed Categories. Among other things, it increases the JSC share by 5.7 percentage points (more than a 1,000 percent increase) and decreases the Program Suppliers share by approximately 17 percentage points (a 35 percent decrease). As this suggests, the JSC

<sup>24</sup> For example, in our Table 2 for 2013, each minute broadcast on WQAD-DT3 is multiplied by only four distant subscribers while each minute broadcast on WGN-DT is multiplied by 42,522,609 broadcast distant subscribers.

<sup>25</sup> This table corrects Gray Table 1 to account for the number of distant subscribers that received the broadcast transmissions as well as to correct Gray's errors regarding the exclusion and mis-categorization of compensable JSC programming. Our Table 2 above is weighted using Gray "wgt" variable (i.e., the Gray sampling weight to account for his stratified sample of stations) as done by Gray when he estimated Table 1 and also weighting by distant subscribers (Gray variable AvgTotalDistantSubscribers).

<sup>26</sup> Approximately 20% of the Program Suppliers' 31.5% volume share is attributable to Paid Programming (i.e., infomercials). Without that Paid Programming, the Program Suppliers share of volume would be approximately 25.2%.

programming is broadcast disproportionately by stations that receive greater distant signal carriage while Program Suppliers' programming is broadcast by stations that receive disproportionately less distant carriage.

**Table 3: Comparison of 2010-13 Average Volume Shares:  
Gray Table 1 Shares v. Corrected Gray Table 1 Shares**

<b>Agreed Category</b>	<b>2010-13 Avg. Gray Volume Share</b>	<b>2010-13 Avg. Gray Volume Share (Corrected)</b>
Canadian Claimants	1.1%	6.1%
Commercial Television	14.3%	19.1%
Devotionals	7.9%	2.6%
Program Suppliers	48.4%	31.5%
Public Television	27.7%	34.4%
JSC	0.6%	6.3%

#### **IV. THE GRAY TABLE 2 ESTIMATES OF “DISTANT VIEWING LEVELS AND SHARES” ARE INVALID AND UNRELIABLE**

18. We explain below how Dr. Gray arrived at his “viewership” estimates in Table 2 and why those estimates are invalid and unreliable. In sum, Gray’s Table 2 does not provide valid and reliable estimates of distant viewership for several reasons, including (i) the audience data upon which Gray relies are not designed to or suitable for measuring distant viewership of his Sample Stations; (ii) the dataset upon which Gray relies lacks data for approximately 94% of the quarter-hour increments of compensable programming at issue; (iii) the dataset upon which Gray relies does not reconcile with and is substantially different than a separate dataset provided by Nielsen; (iv) Gray’s regressions do not fix the fundamental problems with the Gray data including the approximately 94 percent of the compensable distant viewing records where Lindstrom provided no data; (v) Gray’s regressions attempt to predict distant viewership based on its relationship with local viewership, but the data Gray uses are not a reliable estimate of local viewership; (vi) Gray lacks what he calls “local” viewership data for approximately

61 percent of the quarter-hour periods he is attempting to predict; (vii) the unexplained assumptions underlying Gray's regression analysis are problematic in several respects, and (viii) the results in Gray's Table 2 are illogical and improperly marginalize WGNA, the most significant distant signal during 2010-13, and overvalue the least carried stations.

#### **A. Lindstrom NPM Data**

19. The "viewership" estimates set forth in Gray Table 2 are based on audience viewing data provided to Gray by Paul Lindstrom who, at the time, worked for Nielsen. Gray refers to the Lindstrom data as "Nielsen Local and Distant Viewing Household Meter Data for 2010-13," which he abbreviates as "Nielsen Household Meter Data."<sup>27</sup> Nielsen uses different samples of metered households to collect audience data,<sup>28</sup> and it is unclear from Gray's written testimony alone which of the multiple, different Nielsen samples was the source of data provided by Lindstrom and utilized by Gray in making his Table 2 predictions. However, the Program Suppliers have advised JSC that Gray used data taken solely from a subset of Nielsen's National People Meter ("NPM") household sample.<sup>29</sup>

20. Lindstrom says that he "designed custom analyses of national household metered viewing data" for Gray.<sup>30</sup> These analyses were "custom" in the sense that Lindstrom provided Gray with what he says was a subset of 2010-13 NPM data — data concerning viewership by NPM cable households of programming broadcast by the Sample Stations during 2010-13. Lindstrom divided the households into those located

<sup>27</sup> Gray testimony, ¶25.

<sup>28</sup> Written Rebuttal Testimony of Susan Nathan ("Nathan Testimony"), pp. 4-7.

<sup>29</sup> April 12, 2017 Letter From Counsel for Program Suppliers to Counsel for JSC. Gray's use of data from the NPM sample is problematic because Nielsen did not design the NPM sample to produce audience estimates of local or distant viewing of programs televised by individual broadcast stations. Rather, Nielsen designed the NPM sample to estimate nationwide viewing of nationally televised programs. Thus, Gray inappropriately sought to employ the NPM sample for purposes that the sample simply was not designed. See Nathan Testimony, pp. 8-10.

<sup>30</sup> Testimony of Paul B. Lindstrom, p. 4 (dated December 12, 2016) ("Lindstrom Testimony").

within counties that Program Suppliers identified as “local” to each station and those located outside those counties (“distant households”).<sup>31</sup>

21. Based upon information he received from Gracenote and the CRTC, Gray identified 17.4 million quarter-hour segments (“records”) in 2010-13 across all Sample Stations where compensable programming was broadcast to distant households. Gray sought NPM distant and local viewing information for each of these 17.4 million records. However, the dataset Gray received from Lindstrom contains no data whatsoever for approximately 16.4 million (94%) of the 17.4 million quarter-hour records for which Gray sought distant viewing data.<sup>32</sup> While Gray does not report those numbers in his written testimony, he does say that “there are many instances of no recorded distant viewing of compensable retransmitted programs” in the NPM data he received.<sup>33</sup>

22. In those rare instances (6 percent) where the Lindstrom dataset contains data about viewership for a given program, the data are limited. Within this 6 percent slice of the quarter-hour records, fully 84 percent  $[=4.94\%/(100\%-94.1\%)]$  of the records reflect distant viewing by only a single household. As Table 4 below shows, each of 860,608 (4.94%) quarter-hour segments on the Sample Stations generated distant viewing

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<sup>31</sup> Lindstrom Testimony, pp. 4-5. Lindstrom says that “[w]here the viewing minutes to particular distant signal programs were so small as to be statistically insignificant, Nielsen’s custom analysis would assign a zero viewing value.” Lindstrom Testimony, p. 5. Lindstrom does not identify in his dataset what data Nielsen changed to a zero value, or what rules he used to determine when to make such modifications to the data. He has provided no documentation or details regarding this data manipulation. Mr. Lindstrom’s explanation that the data was changed to a “zero viewing value” when the actual values “were so small as to be statistically insignificant” is not a valid basis for making the changes he made. There is no statistical principle stating that small or “statistically insignificant” observations should be changed to zero. Even if there were such a principle, which there is not, Mr. Lindstrom does not explain which data was “statistically insignificant”, or how he determined that certain data were “statistically insignificant.” We understand that Program Suppliers provided no documents or data that would explain which data values were changed to zero and what principles and methods were used to determine which data to change, but merely stated that Mr. Lindstrom “relied on his knowledge and experience” and that there are no underlying documents regarding this element of his testimony.

<sup>32</sup> See Table 4 and Appendix B.

<sup>33</sup> Gray testimony, ¶35.



(for some or all of the quarter-hour) by only one NPM household during 2010-13; 128,308 (0.74%) quarter-hour segments generated distant viewing by two NPM households during that period; and so forth. Of all 1,027,281 records (6 percent of all records) with any data on viewing during 2010-13, there were only 34 quarter-hour segments that attracted more than 10 distant NPM households. Only 0.96 percent of all compensable viewing records report 2 or more distant viewing households.

**Table 4: Distant Viewing Household Counts for all 17.4 Million Compensable Records in the Gray Data<sup>34</sup>**

<b>Distant Viewing Households</b>	<b>Overall 2010-13</b>	
	<b>Record Count</b>	<b>%</b>
No Data	16,387,655	94.10%
1	860,608	4.94%
2	128,308	0.74%
3	27,273	0.16%
4	7,083	0.04%
5	2,342	0.01%
6	931	0.01%
7	394	0.00%
8	195	0.00%
9	71	0.00%
10	42	0.00%
11	17	0.00%
12	8	0.00%
13	3	0.00%
14	3	0.00%
36	1	0.00%
39	1	0.00%
43	1	0.00%
<b>Total:</b>	<b>17,414,936</b>	<b>100%</b>

23. The absence of data in the Lindstrom dataset, upon which Gray relies, is particularly stark for WGNA. Although WGNA reached over 40 million cable households each year on a distant basis,<sup>35</sup> the Lindstrom dataset shows [REDACTED] that watched only [REDACTED] of distant viewing in 2013 (the [REDACTED])

<sup>34</sup> As explained in ¶21 above, Gray breaks compensable distant programing into records made up of quarter-hour segments. See Appendix B for by year details.

<sup>35</sup> Gray Testimony, Appendix B.

██████████ viewing was for ██████████ in 2013).<sup>36</sup> The Lindstrom dataset contains no other data about any of the other programs broadcast on WGNA in 2013. The Lindstrom dataset regarding WGNA is similarly sparse for the years 2010-2012. In 2010, the Lindstrom dataset show that there were a total of only 21 quarter-hour program segments (5.25[=21/4] hours) on WGNA viewed by any NPM cable households on a distant basis. The comparable numbers of distantly viewing households in 2011 and 2012 were 10 quarter-hours (2.4 hours) and 4 quarter-hours (1 hour), respectively. In no instance do the Lindstrom data report more than a single household watching any program on WGNA during any quarter-hour in 2010-13. *See* Appendices C & D.

24. The data Lindstrom provided Gray for WGNA also contrast with the data he provided Gray for other Sample Stations. For example, Appendix E shows (in the column labeled "Lindstrom NPM Distant") the ██████████ quarter-hour segments on WGNA that attracted distant viewing in 2010 according to the Lindstrom data. The comparable number for KTNC-DT, which reached less than ██████████ percent of the distant subscribers reached by WGNA, is ██████████, suggesting that distant viewership of KTNC in 2010 was 900 times greater than that of WGNA.<sup>37</sup>

<sup>36</sup> Appendix C contains the full set of 2010-13 NPM data that Gray received from Lindstrom for all compensable programming on WGNA. Appendix D indicates how Gray coded that data to show the particular programs on WGNA. Note that if any NPM household recorded viewing to any portion of any quarter-hour, Gray considered that household as viewing the entire quarter-hour for purposes of his calculations. Thus, Gray counts this one minute of viewing of WGNA during 2013 as 15 minutes of viewing for purposes of his regression analysis and his Table 2 estimates.

<sup>37</sup> The Lindstrom data reflect several anomalous results. For example, according to that data, the most viewed distant program during the year 2013, with ██████████ NPM households, was a one quarter-hour segment of the "CHANNEL 2 ACTION NEWS AT 5:30AM," broadcast by the Atlanta ABC affiliated station WSB-DT. According to Gray, WSB-DT reached approximately ██████████ distant subscribers (about ██████████ of the number reached by WGNA). Yet, according to the Lindstrom data, this single record had 12 times the number of distant viewers than the total distant viewers on WGNA for all of 2013. Similarly, across all 17.5 million Gray records 2010-13, the third most viewed record was for a 15-minute period of a one hour talk show called "The Doctors" broadcast on WSB-DT on Tuesday, October 30, 2012 from 10am to 11am. The Lindstrom data reports there were ██████████ distant viewers for the 10:45am to 11am record for The

25. According to the Lindstrom data, of the unique Sample Stations during 2010-13 with any distant viewing data, WGNA ranked 271 out of 312 Sampled Stations in terms of its average distant viewing. See Appendix F.

26. We also have reviewed a separate NPM report that Nielsen prepared for Major League Baseball ("MLB") showing distant viewing of compensable programming on WGNA during 2010-13.<sup>38</sup> This report shows very different results for WGNA than the custom report prepared by Lindstrom for Gray. Whereas the Lindstrom report contains almost no data about viewership of any compensable programming on WGNA during the years at issue, the separate Nielsen/MLB report shows significant viewership of programming on WGNA. See Appendix G.<sup>39</sup> According to the Nielsen/MLB report, on average, [REDACTED] distant cable households viewed each of [REDACTED] minutes of JSC programming on WGNA during 2010-13. The comparable numbers for the other Agreed Categories on WGNA were [REDACTED] households for each of [REDACTED] compensable minutes (Commercial Television) and [REDACTED] households for each of [REDACTED] minutes (Program Suppliers). See Table 5.

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Doctors, with [REDACTED] viewers from 10-10:45 am. Thus, according to the Lindstrom data, more NPM households viewed some portion of the last 15 minutes of one episode of The Doctors on the morning of October 30, 2012 than viewed all JSC programming on WGNA for all of 2010-13 combined. Gray includes [REDACTED] minutes (= [REDACTED] records X 15 minutes) of distant viewing for this single record of The Doctors in his regression analysis. The Lindstrom data, however, report that these [REDACTED] households only watched The Doctors for a combined [REDACTED] minutes (not [REDACTED] minutes) — the majority of these [REDACTED] distant viewing households only watched The Doctors for one minute. The next most watched episode of The Doctors was a broadcast at 2 am on December 14, 2012. According to the Lindstrom Data, [REDACTED] households distant viewing some portion of a single 15-minute period of this show but there was [REDACTED] distant viewing of the other 45 minutes of the show. Gray includes [REDACTED] minutes (= [REDACTED] records X 15 minutes) of distant viewing for this single record of The Doctors in his regression analysis. The Lindstrom data report that these [REDACTED] households only watched The Doctors for a combined [REDACTED] minutes (not [REDACTED] minutes) — each household only watched [REDACTED] minute of the one-hour program.

<sup>38</sup> This dataset excludes viewing in those counties that would be deemed local for purposes of Section 111.

<sup>39</sup> Appendix G identifies in the column labeled "MC US AA Proj (units)" the number of distant cable households that Nielsen estimated as watching each of the compensable programs on WGNA during 2010-213. The column labeled "Total Duration" shows the number of minutes each program aired.

**Table 5: Distant Viewing of WGNA  
Compensable Programming (2010-13)<sup>40</sup>**

	<b>JSC</b>	<b>Commercial Television</b>	<b>Program Suppliers</b>
<b>Distant Viewing Compensable Minutes</b>	██████	██████	██████
<b>Distant Average Household Viewing per Compensable Minute</b>	██████	██████	██████

27. It should be noted that the distantly viewing households in the Nielsen/MLB data are not directly comparable to the Lindstrom data as reported and used by Gray. The Nielsen/MLB data report the Nielsen estimated distant cable households that viewed WGNA programming based upon the weighted NPM sample while the Lindstrom data purported to represent viewing by the unweighted (i.e., raw counts) NPM households. But Lindstrom provides no distant viewing data for virtually all of the compensable WGNA programming. The Nielsen/MLB report shows that there clearly was distant viewing of this programming.<sup>41</sup>

<sup>40</sup> I understand that the Nielsen viewing data for WGNA reflect approximately 92% of the compensable programming on WGNA from 2010-13. WGNA distant viewing data was not available for the 5:30 AM to 8:00 AM time period Monday-Friday, as well as for the periods from 5:30 AM to Noon on Saturday and 5:30 AM to 11:00 AM on Sunday. As such, certain compensable programming including devotional programming, early morning CTV programming and early morning PS programming is not included in Table 5. Written Direct Testimony of James M. Trautman, December 22, 2016.

<sup>41</sup> Lindstrom provided Gray with both weighted and unweighted viewing data. Gray, however, chose to use only unweighted data; he treated a minute of viewing by one NPM household as equivalent to a minute of viewing by any other NPM household. This was not a proper use of the NPM data. *See* Nathan Testimony, pp. 9-10.

Indeed, Gray explains that the NPM data he uses “is based on a random sample of people in the United States.” Gray Testimony, ¶26. Gray, however, errs by analyzing this data as if it were a “simple” random sample when it is not. The NPM service uses a complex stratified random sample and not a simple random sample. This is an important fact that Gray ignores. He uses the Nielsen data as if it were a simple random sample where each record had an equal chance of being sampled. The extreme variations in weights are obvious in the data Dr. Gray uses to perform this analysis. Average household weights can differ by a factor of up to 35 (and an average of 12). This means that Dr. Gray’s assumption that 1 minute of viewing at Household A is equal to one minute of viewing at Household B is incorrect — Household A could represent 35 times more viewing than Household B according to the weights in the Lindstrom data.

**B. Gray's Regression "Techniques"**

28. Gray does not base his Table 2 estimates directly on the NPM data provided by Lindstrom. Instead, Gray ran "multiple regression techniques" that use the Lindstrom data, among other things, as inputs to predict the values reported in his Table 2.<sup>42</sup> Gray devotes a single paragraph of his testimony to identifying those "techniques," stating only that they "calculate the mathematical relationship each year from 2010 to 2013 between distant viewing for a program" (i.e., the dependent variable) and other independent variables, *i.e.*, "(1) a measure of local viewing for the program; (2) the total number of distant subscribers of that station; (3) the time of day the program aired by quarter hour; and (4) the type of program aired."

29. Gray used his multiple regression techniques to predict the values on his Table 2 regardless of whether the Lindstrom dataset contained NPM data for a given station. In other words, even where Lindstrom provided Gray with affirmative NPM distant viewing data about a given program, Gray based his prediction of distant viewing on the results of his regression analysis rather than accept the distant viewing data provided by Lindstrom.

30. There are several problems with Gray's regressions. As an initial matter, the outputs of a regression analysis are only as good as the quality of the input data used by the regression. Gray's regression analyses estimate the relationship between the independent variables and the dependent variable (i.e., distant household viewing). They do not correct deficiencies or errors in the Gray data. Thus, while Gray suggests that the use of multiple regression compensates for the sparsity of data in the Lindstrom dataset,<sup>43</sup> the regression analyses do not solve this problem. Gray's regression model cannot

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<sup>42</sup> Gray Testimony, ¶36.

<sup>43</sup> Gray Testimony, ¶¶35-36.

compensate for the deficiencies in the underlying data. Table 6 shows the Gray predictions, based on his regressions, are not much different than the results calculated directly from the Lindstrom dataset — except that the regression increases the Program Suppliers' overall 2010-13 share by approximately six percentage points and decreases the CTV share by a like amount. See Appendix H for more details.<sup>44</sup>

**Table 6: Shares of Distant Viewing (2010-13)**  
**Gray Table 2 Predicted vs. Shares Calculated Directly from Lindstrom Data**

<b>Agreed Category</b>	<b>Gray Table 2 Predicted Shares of Distant Viewing</b>		<b>Distant Viewing According to Lindstrom Data (Only Sample Stations with Lindstrom data)</b>
	<b>All Sample Stations (Same as Table 2)</b>	<b>Only Sample Stations with Lindstrom data</b>	
Canadian Claimants	3.5%	1.3%	1.8%
Commercial Television	13.8%	12.9%	19.4%
Devotionals	1.5%	1.4%	0.4%
Program Suppliers	45.7%	45.0%	38.7%
Public Television	32.8%	36.5%	37.1%
JSC	2.7%	2.9%	2.5%

31. In order to run his regression, Gray had to decide how to address the fact that the Lindstrom dataset lacked viewership data for approximately 94 percent of the compensable quarter-hours of programming at issue. Gray does not explain in his written testimony precisely how he did so. However, Gray's approach is evident upon a review of the computer code that he developed. His approach is problematic in several respects.

32. Where the Lindstrom dataset set contained any household viewing data for at least one compensable quarter-hour broadcast (for either distant or local household viewing) for a given station, Gray deemed the data for all quarter-hours of all compensable broadcasts for that station to be complete and then assumed that the absence

<sup>44</sup> Appendix H compares the results of Gray's regressions versus the NPM data that Lindstrom provided to Gray on a year-to-year basis.

of data for any given quarter-hour period should be coded as zero viewership. His code instructed the computer to designate any quarter-hour periods with no household viewing data as having zero viewers. For example and as discussed above, the Lindstrom dataset included only one quarter-hour record of a distantly viewing household on WGNA in 2013. Gray assumed that the absence of data for all of the other approximately 3,645 compensable quarter-hour periods on WGNA in 2013 reflected that no one watched any of those programs and coded all approximately 3,645 quarter-hour periods as zero distantly viewing households.

33. Gray used approximately 14.5 million quarter-hour records in his regression analysis (he excluded approximately 3 million records that he coded as having missing distant viewing — see ¶34). Among the total 14.5 million records Gray used in his regression analysis, Gray coded approximately 13.4 million (92.9%) compensable quarter-hours, for which he received no viewership data from Lindstrom, as having zero distant household viewing. By choosing to code zero distant viewing for large stations such as WGNA, Gray created counterintuitive associations within the data where stations with extremely large distant subscribers are predicted to have low numbers of viewers. The coding of most periods of compensable programming on WGNA as having zero viewers understates the actual association between distant subscribers and distant household viewing. Again, none of this is explained or justified in the Gray testimony, and it conflicts with the data contained in the Nielsen/MLB report, which shows substantial viewing of compensable WGNA programming.

34. On the other hand, where the Lindstrom dataset contains no data on distant or local household viewing for a given station, Gray wrote computer code that deemed such data as “missing.” Unlike a designation of zero, in this case every quarter-hour

period was designated as “missing”, and this data was not used in the estimation of the regression analysis. Instead, the regression analysis (based on data with non-missing household viewing) was used to predict the distant household viewing for these records. Gray coded approximately 3 million quarter-hour periods of compensable programming as “missing” and he predicted the household viewing for these records.<sup>45</sup>

35. There are multiple problems with Gray’s use of “local” viewership data in his regressions. As an initial matter, Gray does not appear to follow his own methodology for establishing the relationship between local viewing and distant viewing.<sup>46</sup> Specifically, Gray says he uses the “Log of Local Ratings” as one of his independent variables to predict distant viewing.<sup>47</sup> However, we can see from Gray’s computer code that he did not take the logarithm of Local Rating. Instead, he simply calculated “Local Ratings” without applying the logarithm. There is no explanation in Gray’s written testimony as to why he departed from his stated “Log of Local Ratings” independent variable. One potential explanation is that it was not possible to take the logarithm of the 7.7 million quarter-hour records for which Lindstrom provided no local viewing data and to which Gray assigned a value of zero. Simply put, the logarithm of zero does not exist. Had Gray attempted to take the logarithm of zero for 7.7 million records, his computer program — unable to calculate the log of zero — would have

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<sup>45</sup> These stations with missing distant household viewing include stations in the US, Canada, Puerto Rico, Virgin Islands, and Mexico.

<sup>46</sup> Gray states “it is possible to obtain reliable estimates of distant viewing for all retransmitted programs by also relying on Nielsen measures of household viewing in each retransmitted station’s local market.” Gray Testimony, ¶35. He further states that “[t]he greater the number of people viewing a particular program on a per capita local basis, all else equal, the higher the level of distant viewing.” Gray Testimony, ¶36.

<sup>47</sup> Gray Testimony, Appendix C. Gray does not explain in his report what “Log of Local Ratings” means. “Log” clearly refers to the logarithm of Local Rating. Gray’s computer code defines “Local Ratings” as the ratio of local household viewing divided by total subscribership. It is unclear why Gray is using total subscribership (the sum of local and distant subscribership) to measure local viewership and Gray offers no justification for doing so.



classified all 7.7 million records as “missing” and would have excluded them from his regression analysis. Whatever the ultimate reason, Gray did not apply the “Log of Local Ratings” independent variable that he said he applied.

36. Moreover, notwithstanding his stated goal of predicting distant viewership based on the relationship between distant viewership and local viewership, Gray did not obtain from Lindstrom data that reliably measures local or distant household viewing for the Gray Sample Stations. Rather, the Nielsen data provided by Lindstrom was taken from the NPM sample, which is designed to estimate national viewership of broadcast programming. We understand that one cannot, as Gray attempts to do, simply isolate the NPM data for given counties and use such data as a proxy for local or distant household viewing. The NPM weighted viewing data are only representative of national, not local, viewing.<sup>48</sup>

37. Furthermore, even if one assumed that the data that Gray calls “local” is in fact a reliable measure of local viewership, the Lindstrom dataset does not contain such “local” data for 10.7 million of the 17.4 quarter-hour records of compensable programming for which Gray is attempting to predict distant viewing.<sup>49</sup> Thus, Gray is attempting to predict distant viewership based upon the relationship between distant viewership and local viewership, but he lacks data about what he calls local viewership (i.e., “Log of Local Ratings”) for 61 percent [=10.7 million/17.4 million] of the records underlying Gray Table 2. In the 3 million records that Gray coded as missing local viewing, Gray imputed a value for local viewership by assuming that for each missing record that the local viewing would have been the same as the average local viewing for

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<sup>48</sup> Nathan Testimony, pp. 4-5, 8-9.

<sup>49</sup> Gray codes 7.7 million records as zero and 3 million records as missing.

all programs of the same program type shown during the same “time of day”<sup>50</sup> block on any Sample Station the entire year.

### C. Gray Table 2 “Distant Viewing” Estimates

38. Gray’s Table 2 is labeled “Distant Viewing Levels and Shares By Royalty Year.” It contains estimates of the “Distant Viewing” and “Share of Distant Viewing” of each of the Agreed Categories for each of the years 2010-13. The column labeled “Distant Viewing” in Gray Table 2 is shown only as a whole number with no corresponding metric. For example, Total Distant Viewing in 2010 is shown as “1,149,455.” According to Gray, Program Suppliers’ “Distant Viewing” accounts for 585,521 of the 1,149,455.

39. Gray does not explain what unit of measurement is reflected in the “Distant Viewing” column. The “Distant Viewing” number reflects the number of households that Gray predicts viewed any portion of a quarter-hour of compensable programming that CSOs retransmitted during 2010-13 based on the Lindstrom NPM sample. The Gray counts of distantly viewing households do not distinguish between one household watching 120 minutes (i.e., eight quarter-hour records) of a program and eight households each watching 1 minute of the same program (i.e., eight total viewing minutes) — in both cases the Gray data would report eight distantly viewing households even though the actual viewing minutes differ by a factor of 15.

40. As explained above, Gray does not account for what portion of any quarter-hour period that a NPM household actually viewed any given program. Thus, the “Distant Viewing” numbers in Gray Table 2 do not accurately reflect the amount of time that the predicted NPM households spent watching any of the Agreed Program categories.

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<sup>50</sup> Gray defines six “time of day” blocks of varying length.

Any of the “Distant Viewing” numbers in Table 2 could be off by a factor of as much as 15.<sup>51</sup> Moreover, the estimates in Gray Table 2 are inaccurate because, as explained above, Gray ignores the fact that the NPM households have different weights in the Nielsen sample. These estimates cannot, in any event, be projected to the full universe of cable households for the Sample Stations.

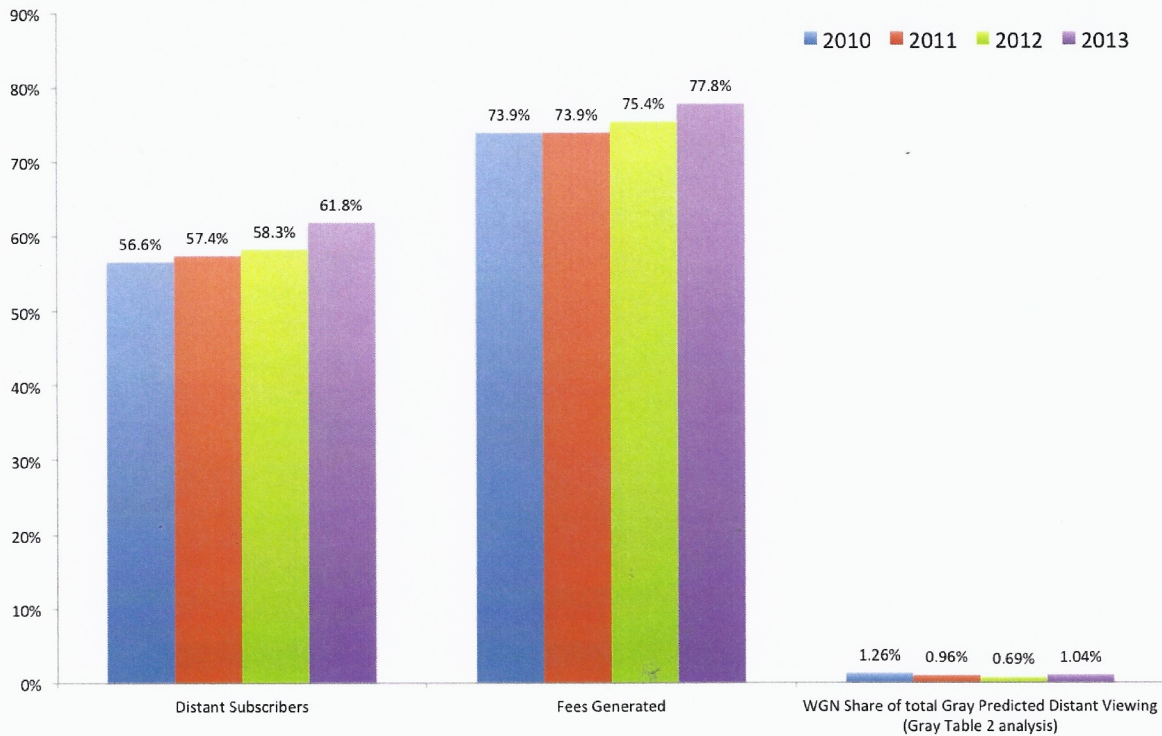
41. The estimates in Gray’s Table 2 lead to several illogical and anomalous results. As noted above, during 2010-13, WGNA was by far the single largest distantly retransmitted station — the WGNA share of distant subscribers (57% to 62%) and fees generated (74% to 78%) was predominant for all years 2010-13.<sup>52</sup> Yet, Gray’s Table 2 would allocate only about 1 percent of the 2010-13 royalties to all of the compensable programming on WGNA. See Figure 1.

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<sup>51</sup> Gray’s regression analysis uses 18.5 million distant viewing minutes (as Gray coded it from the Lindstrom NPM data). However, the Lindstrom data only report 11.3 million viewing minutes. The difference (7.2 million) is a function of Gray treating any minute of viewing within a 15-minute period as 15 minutes of viewing.

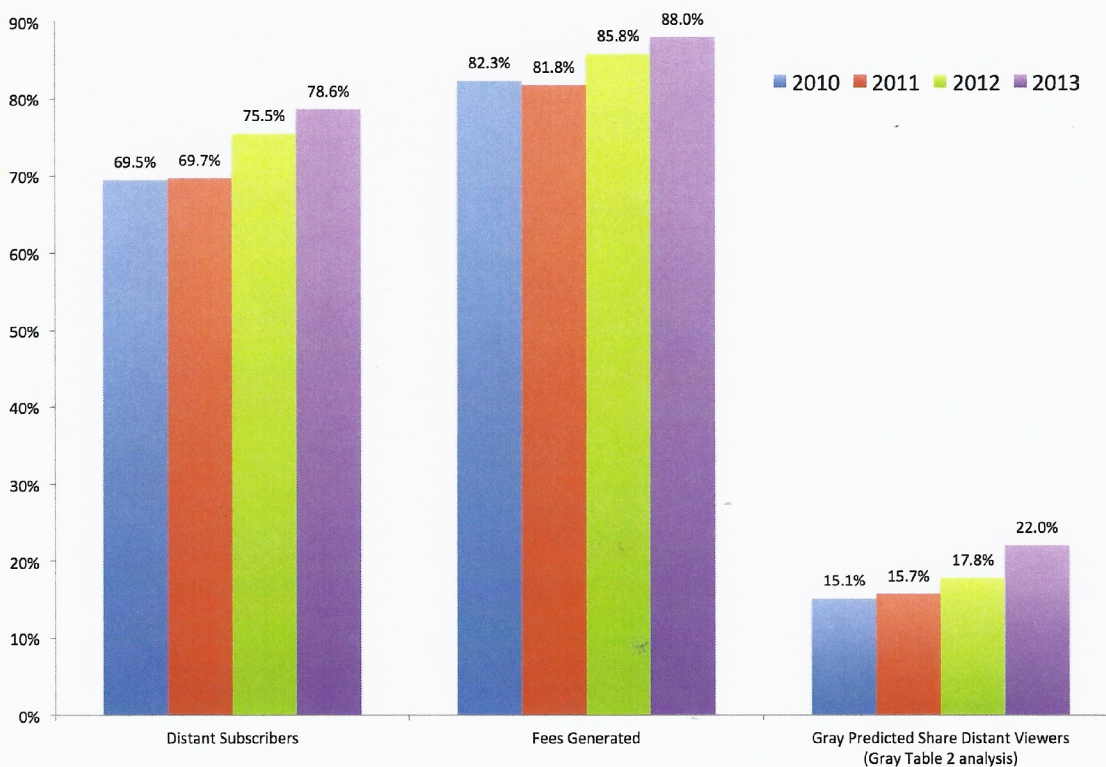
<sup>52</sup> “One of CDC’s ongoing projects is to provide a means to match royalty payments documented on the Statements of Account to individual signals. This process allows the CDC to estimate how much of the royalty fund was attributable to each signal, or, when aggregated, to each signal type. These apportioned royalties have been referred to in prior distribution proceedings as ‘fee generation’ or ‘fees-gen.’” Exhibit CCG-4 (p. 3), Written Direct Testimony of Jonda Martin. CDC also determined the number of cable subscribers that receive each station on a distant signal basis. It then aggregates these numbers to reflect total distant subscribers (which double counts those subscribers who receive multiple stations). The figures in this section use the CDC data on fee-gen and total distant subscribers as reported in the dataset utilized by Gray Table 2.

**Figure 1: Gray's Prediction For WGNA Viewing vs. WGNA's Share of Distant Subscribers and Fees Generated**



42. There is a similar disconnect between Gray's Table 2 results and the facts concerning Gray's Stratum 5 stations. Stratum 5 includes the largest stations by distant subscribership in Gray's sample (29 in 2010, 29 in 2011, 45 in 2012, and 46 in 2013). Appendix A, Table-A1. Figure 2 shows that these large stations in Stratum 5 had approximately 73 percent of the total distant subscribers and 84 percent of the total fees generated from all stations in 2010-13. Yet, Gray Table 2 predicts that the compensable programming on the largest Stratum 5 stations account for only approximately 18 percent of the 2010-13 distant viewing. In addition to the fact that 18 percent is disproportionately small, it is made up largely of programming on stations other than WGNA, even though WGNA is responsible for most of the distant subscribership and most of the fees generated for the Stratum 5 stations.

**Figure 2: Gray's Prediction For "Stratum 5" Viewing vs. "Stratum 5" Share of Distant Subscribers and Fees Generated**



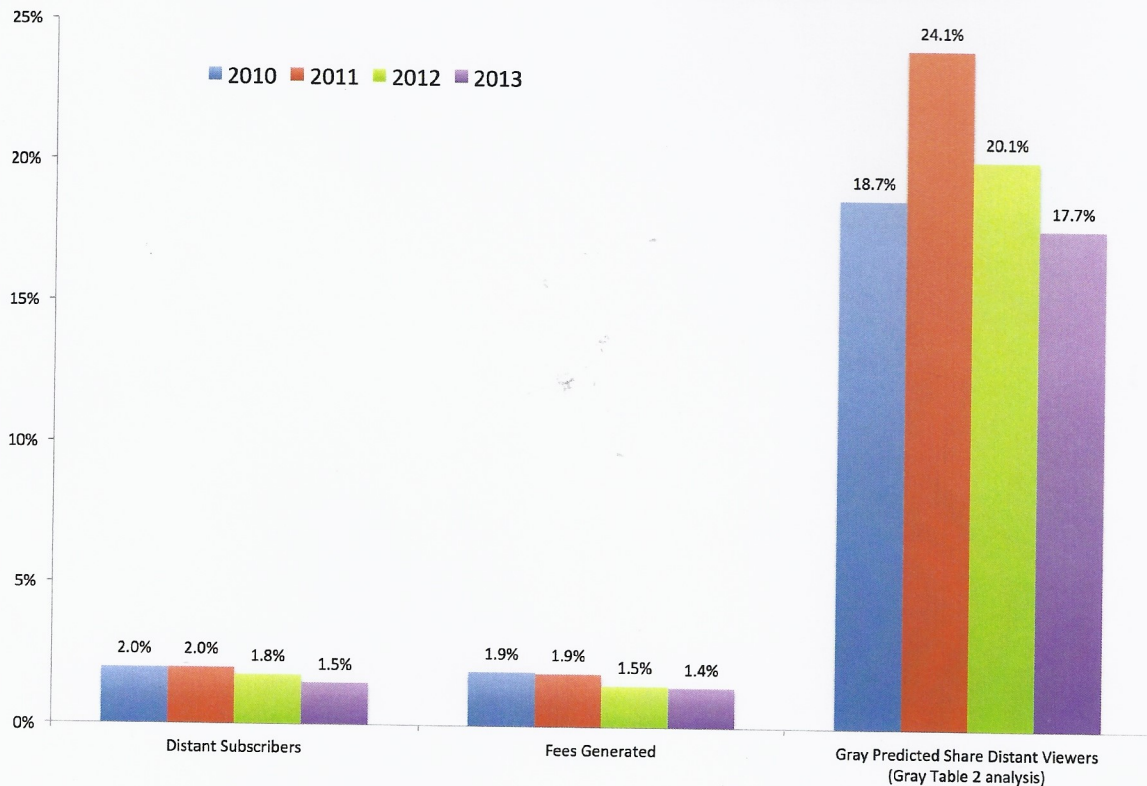
43. Gray Table 2 also produces illogical results for the smallest stations whose programming was distantly retransmitted. Gray's Stratum 1 contains the 706 smallest stations (in 2011) with distant subscribers ranging from only *one* distant subscriber to a maximum of 6,464 distant subscribers — these 706 stations average 2,110 distant subscribers per stations.<sup>53, 54</sup> These 706 small stations in Stratum 1 had only 2 percent of

<sup>53</sup> Consider the example of KUNW-LP, a small Stratum 1 station located in Yakima, WA. This station had only [REDACTED] distant subscribers in 2013 ([REDACTED] of total distant subscribers) and \$[REDACTED] fees generated ([REDACTED] of total fees generated). Yet, the Lindstrom NPM sample data used by Gray report [REDACTED] distant viewing households (unweighted), as compared to 1 single distant viewer for WGNA in 2013. Gray's uses his regression analysis (along with his sampling weights) to extrapolate his estimates of KUNW-LP to a larger population of Stratum 1 stations that Gray did not sample. Gray multiplies his prediction for KUNW-LP by 41.68 to extrapolate his prediction of 41.68 Stratum 1 stations that he did not sample — Gray estimates KUNW-LP (as 41 similar stations he did not sample) are responsible for 17.63 percent of all distant viewers in 2013 (99,750 weighted distant viewing households), even though the 792 stations in Stratum 1 in 2013 together only comprised approximately 1.5% of distant subscribership and 1.4% of fees generated.



the total distant subscribers and only 1.9 percent of the total fees generated from all 1,338 stations in 2011.<sup>55</sup> However, Gray Table 2 would allocate 21.1% of the cable royalties for 2011 to these smallest stations.<sup>56</sup> The results are similar for 2010 and 2012-13. See Figure 3.

**Figure 3: Gray's Prediction For Stratum 1 Viewing vs. Stratum 1 Share of Distant Subscribers and Fees Generated**



<sup>54</sup> In 2010, Gray coded 6 stations — WFXS-DT, KRPV-DT, WBMM-DT, KVIA-DT, KTFT-LP, and WWPX-DT—as having [redacted] distant viewers. Individually and cumulatively, these six stations are small with only [redacted] distant subscribers ([redacted] percent of the total distant subscribers) and \$ [redacted] fees generated ([redacted] percent of the total fees generated). Yet Gray predicts that these 6 stations, when weighted to the entire universe (based on the Gray sampling weights), account for 3.62 percent of the distant viewing share in Gray's Table 2. Gray therefore predicts that these six stations (with zero distant viewing in the Lindstrom NPM data) have a larger share (in Gray Table 2) than all of the JSC programming.

<sup>55</sup> Dr. Gray only sampled 21 of these 706 stations in Stratum 1. Dr. Gray uses his predictions for these 21 small stations to estimate the impact of 706 CSOs in Stratum 1.

<sup>56</sup> More than 50%  $[(13.4\%+10.1\%)/45.5\%]$  of the distant viewing share allocated to the Program Suppliers in Gray Table 2 comes from stations in Stratum 1 and 2. Likewise, Stratum 1 and 2 stations contribute 4 times more  $[(13.4\%+10.1\%)/5.9\%]$  to the Gray Table 2 Share for Program Suppliers than do Stratum 5 stations.

44. Similarly illogical are the results in Gray's Table 2 regarding paid programming (or "infomercials"). Table 7 shows that in three of the four years at issue, Gray Table 2 estimates that paid programming should receive more royalties (up to double) than all royalties for sports programming combined.

**Table 7: Dr. Gray's Estimated Distant Viewing Shares for Sports Programming v. Paid Programming**

	<b>Sports Programming</b>	<b>Paid Programming</b>	<b>Paid Programming Divided by JSC</b>
2010	2.13%	4.37%	205%
2011	2.57%	4.62%	180%
2012	2.06%	2.85%	138%
2013	4.76%	2.83%	59%
Average	2.88%	3.67%	146%

45. We compared Gray's predicted number of distantly viewing households to the number of distant viewing households reported in the Lindstrom dataset. If Gray's annual predicted distant viewing by station were reliable (which it is not), then the vast majority of the Gray distant viewing data (as reported in the Lindstrom NPM data) would fall within the confidence interval of Gray's predictions. We compared the viewing data as reported by Lindstrom to the confidence interval surrounding Gray's predicted distant viewing households in 2013—the annual distant viewing total reported by Lindstrom for 144 of 146 stations were *outside* of the confidence interval of the distant viewing predicted by Gray — this is a failure rate of 98.6 percent.

46. In sum, Gray Table 2 produces illogical results that are a reflection of Gray's attempt to use NPM data for a purpose it was not designed, an inadequate data set, and a regression analysis that exacerbates rather than solves the issues with the data set.

## Appendix A: Dr. Gray's Sampling Methodology

Table A-1: Number of Stations In Each Stratum (including sampled and non-sampled stations)

Stratum	2010	2011	2012	2013	Total
Stratum 1	632	706	759	792	2889
Stratum 2	310	325	317	315	1267
Stratum 3	158	162	156	149	625
Stratum 4	110	116	105	96	427
Stratum 5	29	29	45	46	149
Overall	1239	1338	1382	1398	5357

Table A-2: Average Distant Subscribers by Station

Stratum	2010	2011	2012	2013	Total
Stratum 1	2,287	2,110	1,684	1,275	1,808
Stratum 2	13,000	12,307	10,020	8,842	11,043
Stratum 3	37,782	34,851	29,432	26,708	32,298
Stratum 4	98,277	99,891	83,692	71,774	89,171
Stratum 5	1,749,532	1,803,635	1,222,140	1,175,052	1,423,426

Table A-3: Percent of Total Distant Subscribers by Stratum

Stratum	2010	2011	2012	2013	Total
Stratum 1	2.0%	2.0%	1.8%	1.5%	1.8%
Stratum 2	5.5%	5.3%	4.4%	4.1%	4.8%
Stratum 3	8.2%	7.5%	6.3%	5.8%	7.0%
Stratum 4	14.8%	15.4%	12.1%	10.0%	13.1%
Stratum 5	69.5%	69.7%	75.5%	78.7%	73.2%

Table A-4: Probability of Sampling a Station (i.e., Percent of Stations Sampled)

Stratum	2010	2011	2012	2013	Average
Stratum 1	3.5%	2.8%	2.5%	2.4%	2.8%
Stratum 2	7.4%	6.5%	5.4%	6.3%	6.4%
Stratum 3	19.0%	14.2%	12.8%	14.8%	15.2%
Stratum 4	44.5%	51.7%	48.6%	45.8%	47.8%
Stratum 5	100%	100%	100%	100%	100%
Overall	12.3%	11.4%	11.0%	10.8%	11.4%



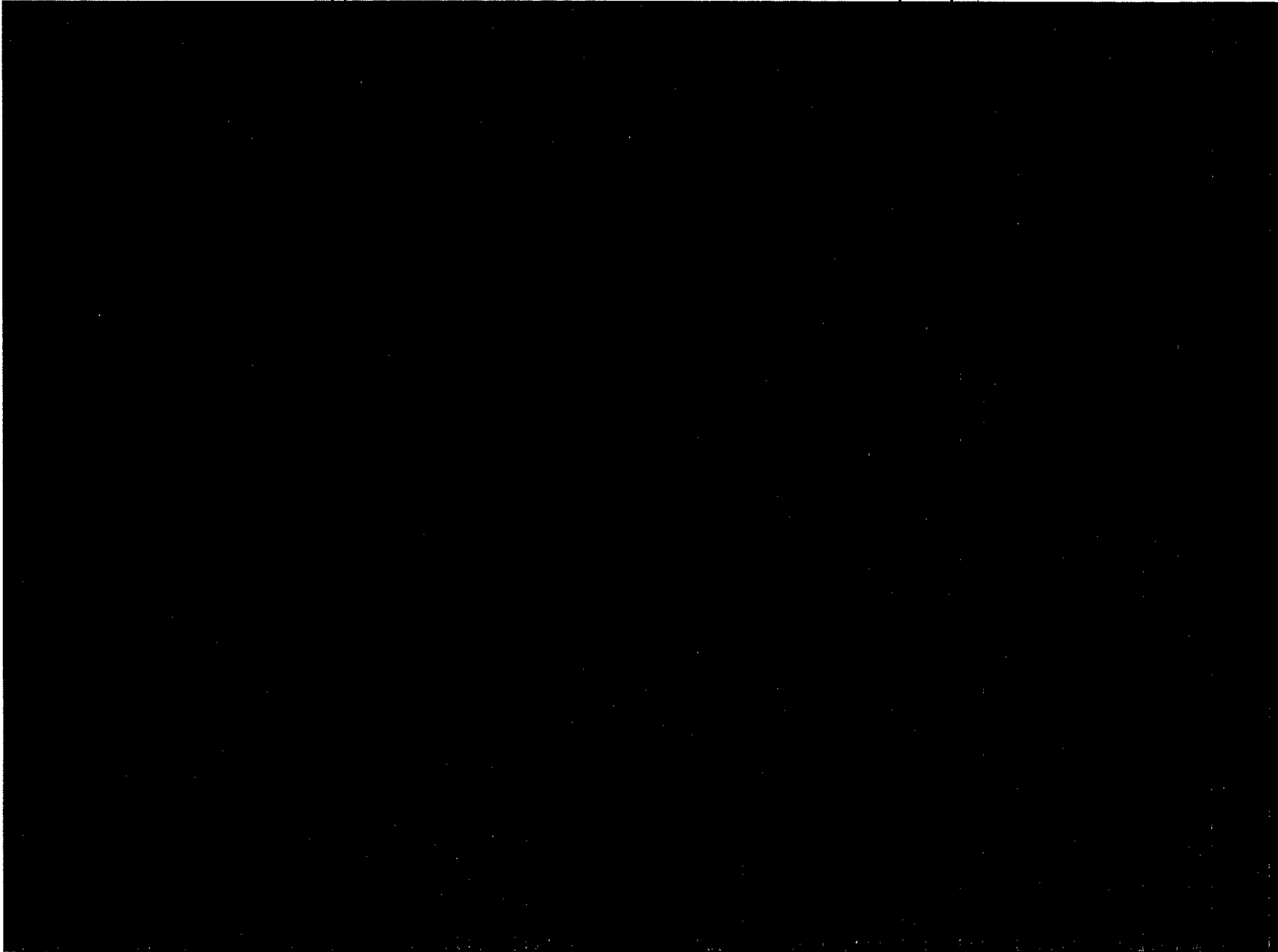
**Table A-5: Total Sampled Stations**

<b>Stratum</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Total</b>
Stratum 1	22	20	19	19	80
Stratum 2	23	21	17	20	81
Stratum 3	30	23	20	22	95
Stratum 4	49	60	51	44	204
Stratum 5	29	29	45	46	149
Overall	153	153	152	151	609

**Appendix B: Distant Viewing Household Counts for all 17.4 Million  
Compensable Records in the Gray Data**

Distant Viewing Households	2010		2011		2012		2013		Overall 2010-13	
	Record Count	%	Record Count	%	Record Count	%	Record Count	%	Record Count	%
No Data	3,929,052	93.15%	4,146,822	94.18%	4,001,602	93.72%	4,310,179	95.27%	16,387,655	94.10%
1	233,831	5.54%	215,158	4.89%	228,185	5.34%	183,434	4.05%	860,608	4.94%
2	41,953	0.99%	31,542	0.72%	31,570	0.74%	23,243	0.51%	128,308	0.74%
3	9,608	0.23%	6,760	0.15%	5,975	0.14%	4,930	0.11%	27,273	0.16%
4	2,514	0.06%	1,861	0.04%	1,446	0.03%	1,262	0.03%	7,083	0.04%
5	733	0.02%	692	0.02%	453	0.01%	464	0.01%	2,342	0.01%
6	278	0.01%	230	0.01%	200	0.00%	223	0.00%	931	0.01%
7	82	0.00%	98	0.00%	100	0.00%	114	0.00%	394	0.00%
8	37	0.00%	60	0.00%	33	0.00%	65	0.00%	195	0.00%
9	6	0.00%	31	0.00%	13	0.00%	21	0.00%	71	0.00%
10	2	0.00%	20	0.00%	6	0.00%	14	0.00%	42	0.00%
11	7	0.00%	8	0.00%			2	0.00%	17	0.00%
12	2	0.00%	5	0.00%			1	0.00%	8	0.00%
13			3	0.00%					3	0.00%
14			1	0.00%	2	0.00%			3	0.00%
36					1	0.00%			1	0.00%
39	1	0.00%							1	0.00%
43	1	0.00%							1	0.00%
<b>Total:</b>	<b>4,218,107</b>	<b>100%</b>	<b>4,403,291</b>	<b>100%</b>	<b>4,269,586</b>	<b>100%</b>	<b>4,523,952</b>	<b>100%</b>	<b>17,414,936</b>	<b>100%</b>

**Appendix C: Lindstrom NPM Data For WGN Records Used By Gray Data**



**Appendix D: All Gray WGN Records With Any Distant Viewing  
(Based On Lindstrom Data)**

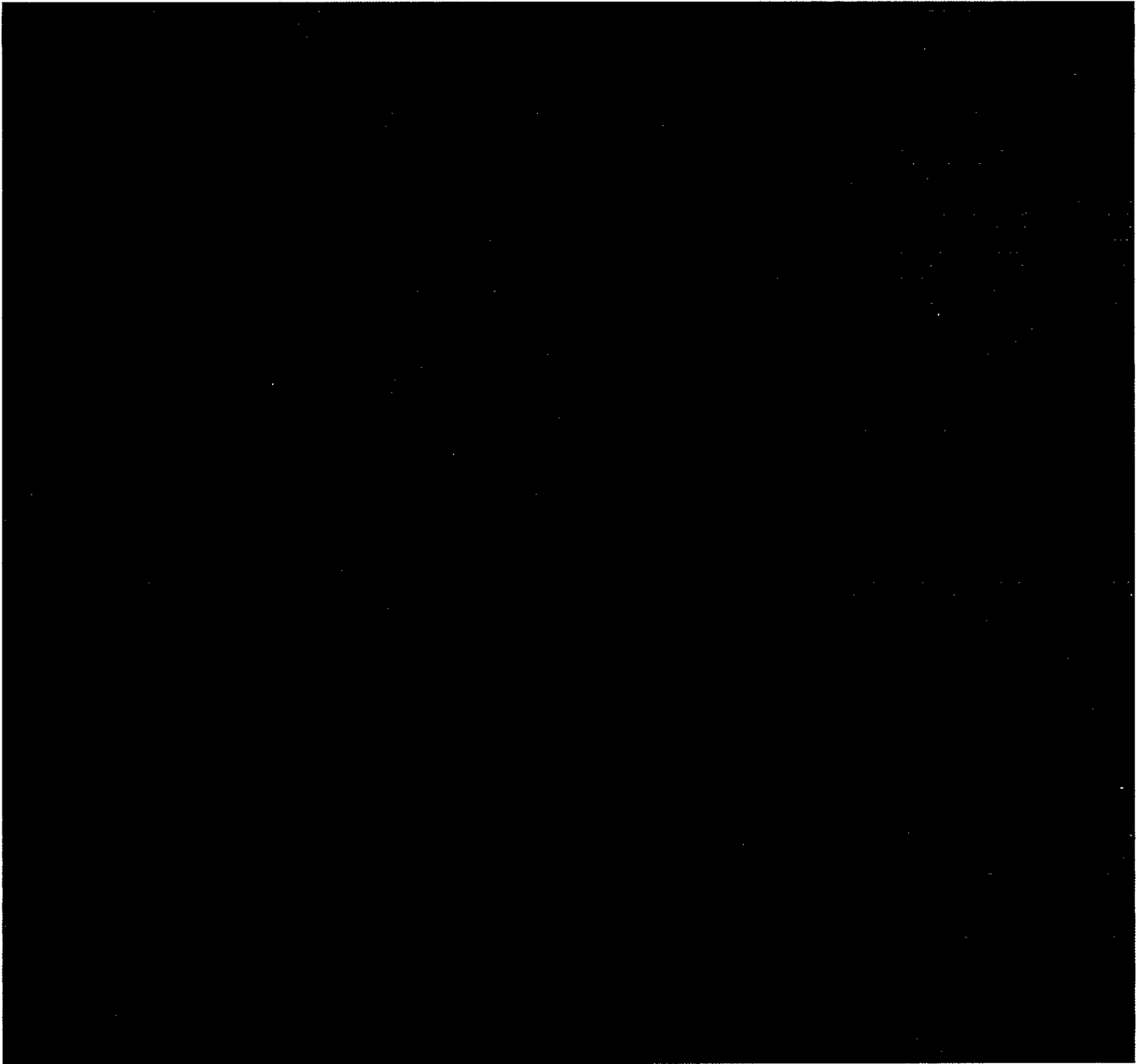


## Appendix E: Gray Data by Year, Stratum, and Call Sign

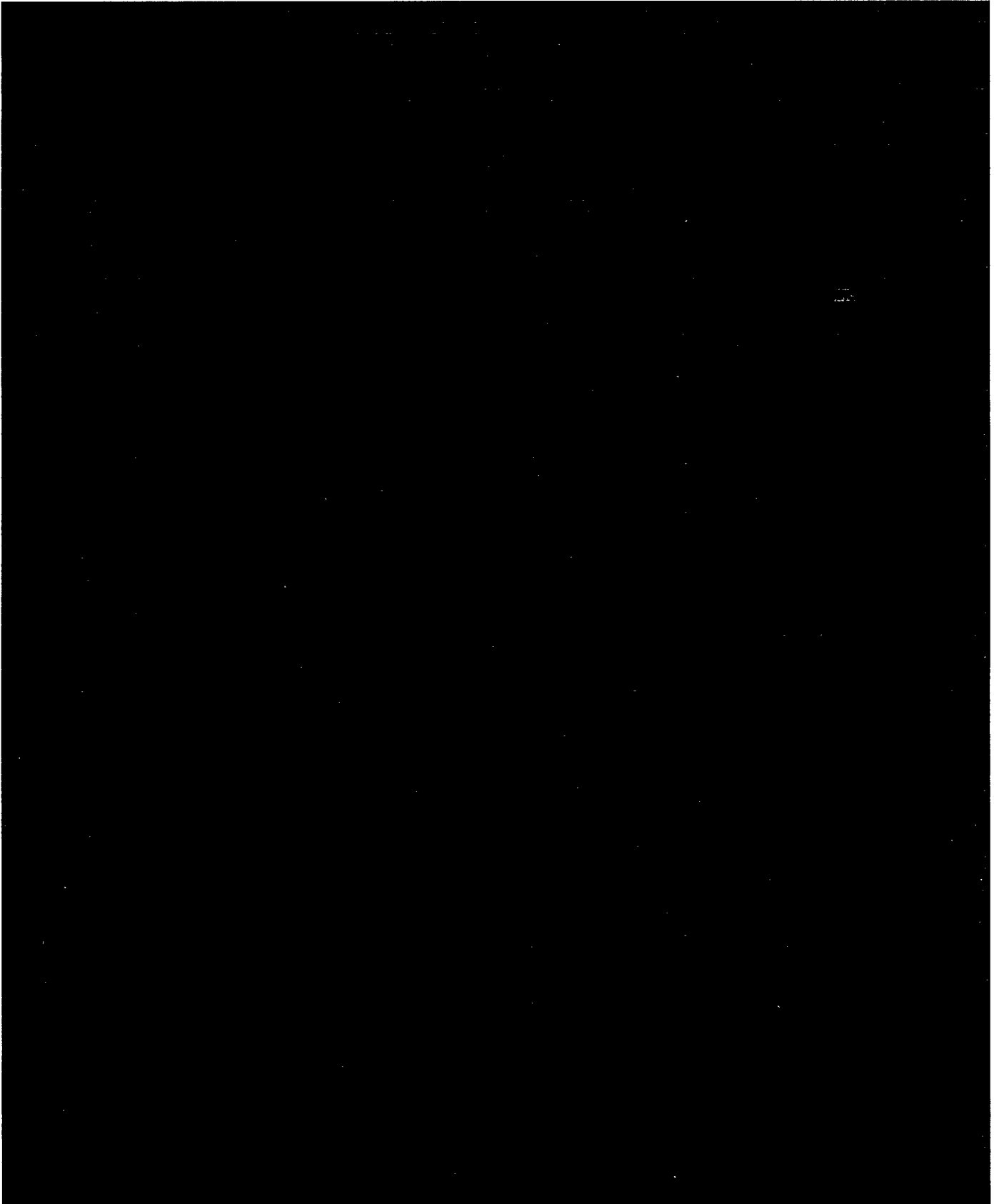
Year 2010				Household "Viewing" from Gray Sample Stations			Household "Viewing" Projected to All Stations	
Stratum	Call Sign	Distant Subscribers	Records in Gray Data	Lindstrom NPM Local	Lindstrom NPM Distant	Gray Predicted Distant	Lindstrom NPM Distant	Gray Predicted Distant
All	All	56,297,633	4,218,107	10,400,000	363,077	418,249	737,307	1,149,454

Year 2010				Household "Viewing" from Gray Sample Stations			Household "Viewing" Projected to All Stations	
Stratum	Call Sign	Distant Subscribers	Records in Gray Data	Lindstrom NPM Local	Lindstrom NPM Distant	Gray Predicted Distant	Lindstrom NPM Distant	Gray Predicted Distant
5	All	50,500,066	901,530	3,466,408	204,620	197,543	175,376	173,090
4	All	4,441,493	1,370,037	4,197,193	129,181	146,427	247,095	289,331
3	All	995,082	689,546	1,219,122	10,736	41,359	47,213	197,660
2	All	314,730	622,972	627,425	12,113	23,947	119,810	273,922
1	All	46,262	634,022	912,513	6,427	8,974	147,812	215,452

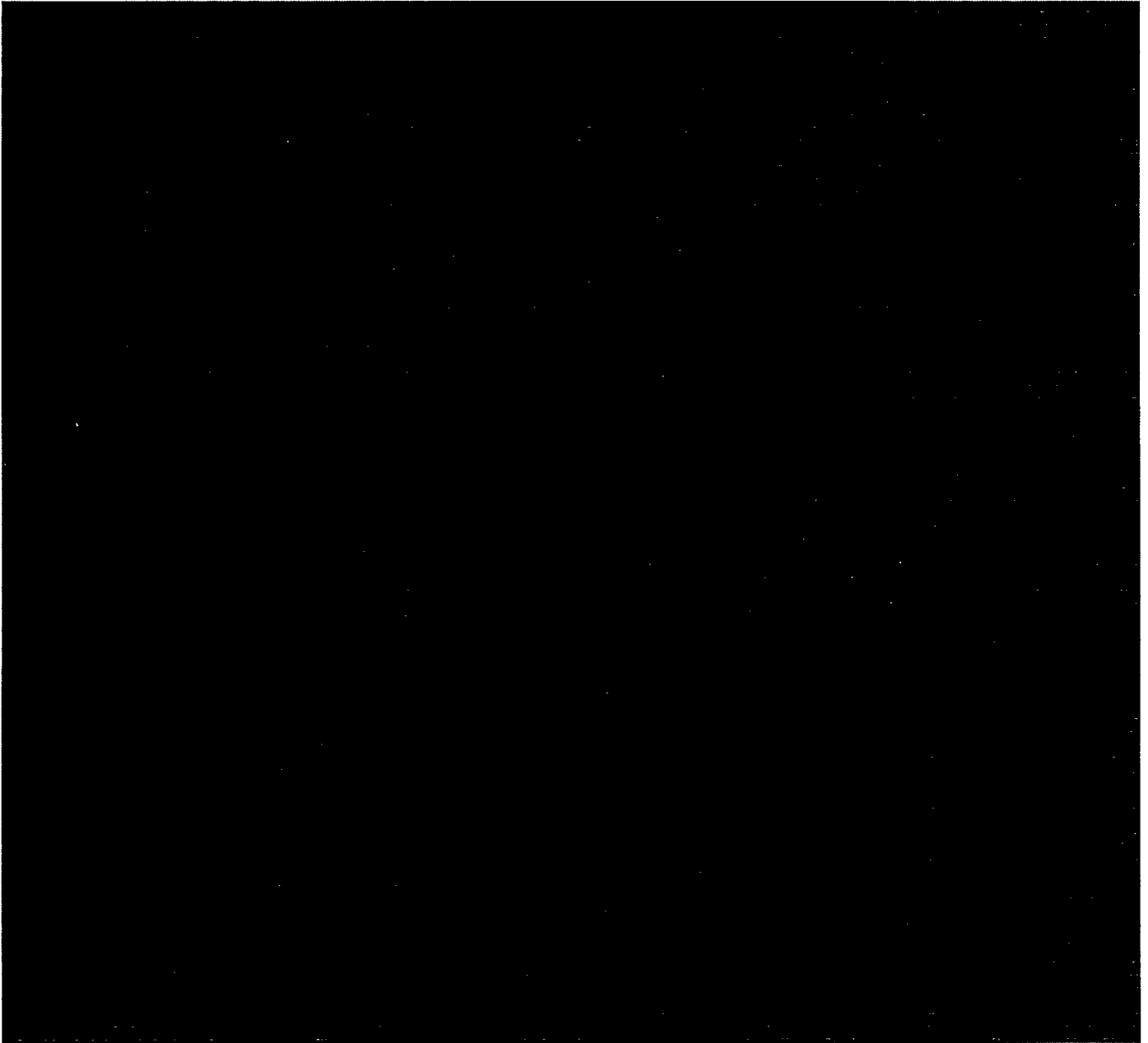
Appendix E: Gray Data by Year, Stratum, and Call Sign



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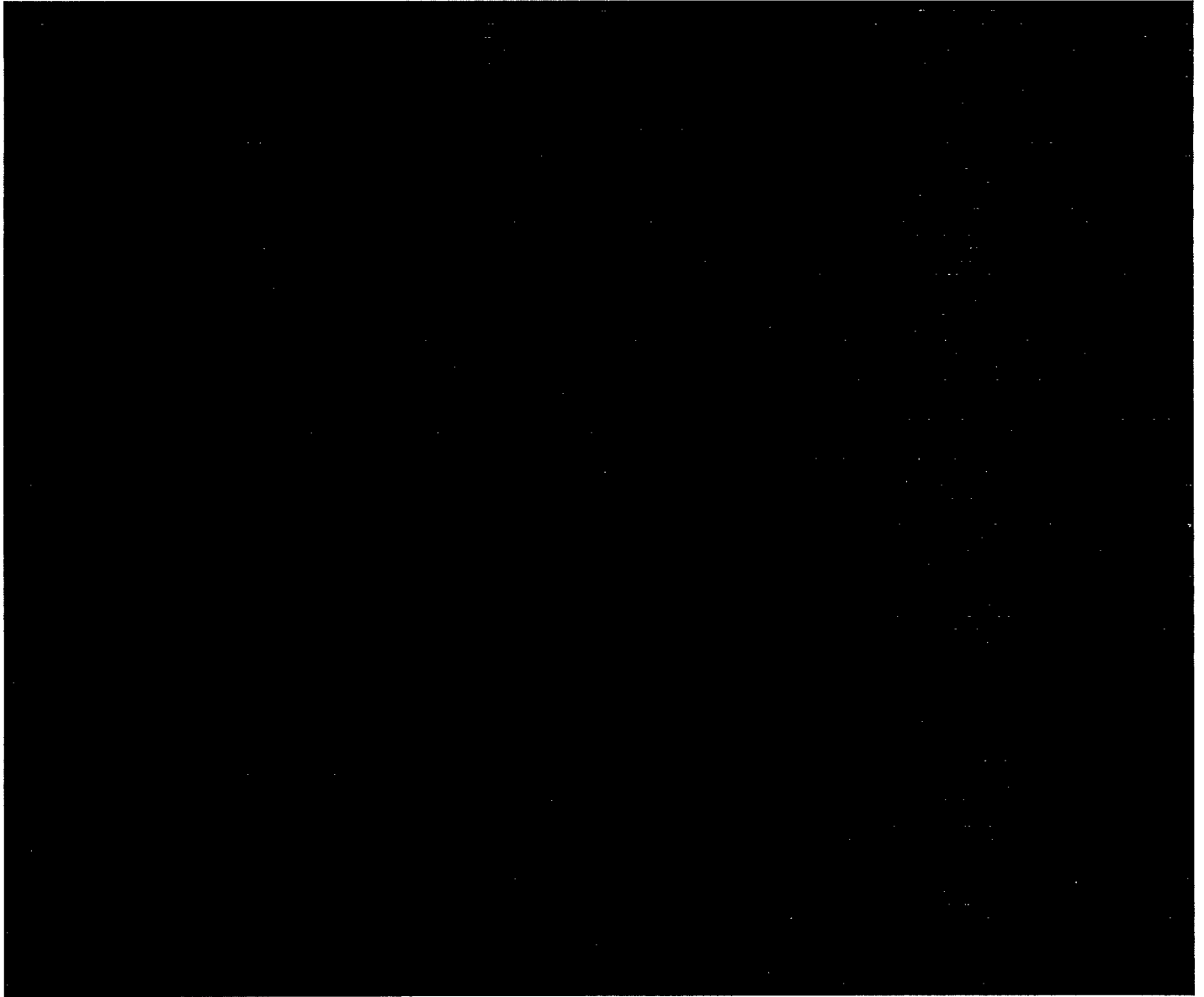


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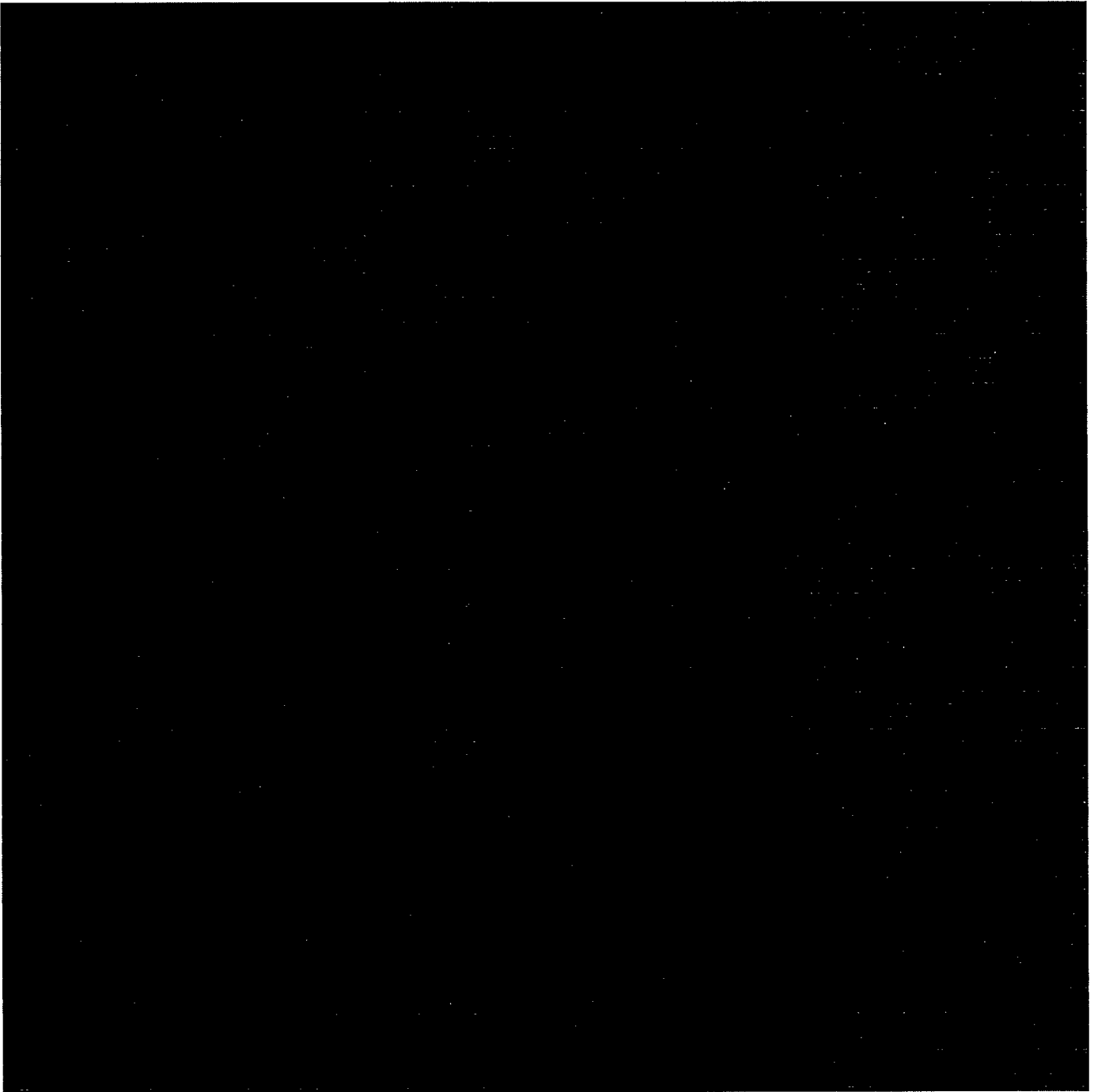
Appendix E: Gray Data by Year, Stratum, and Call Sign



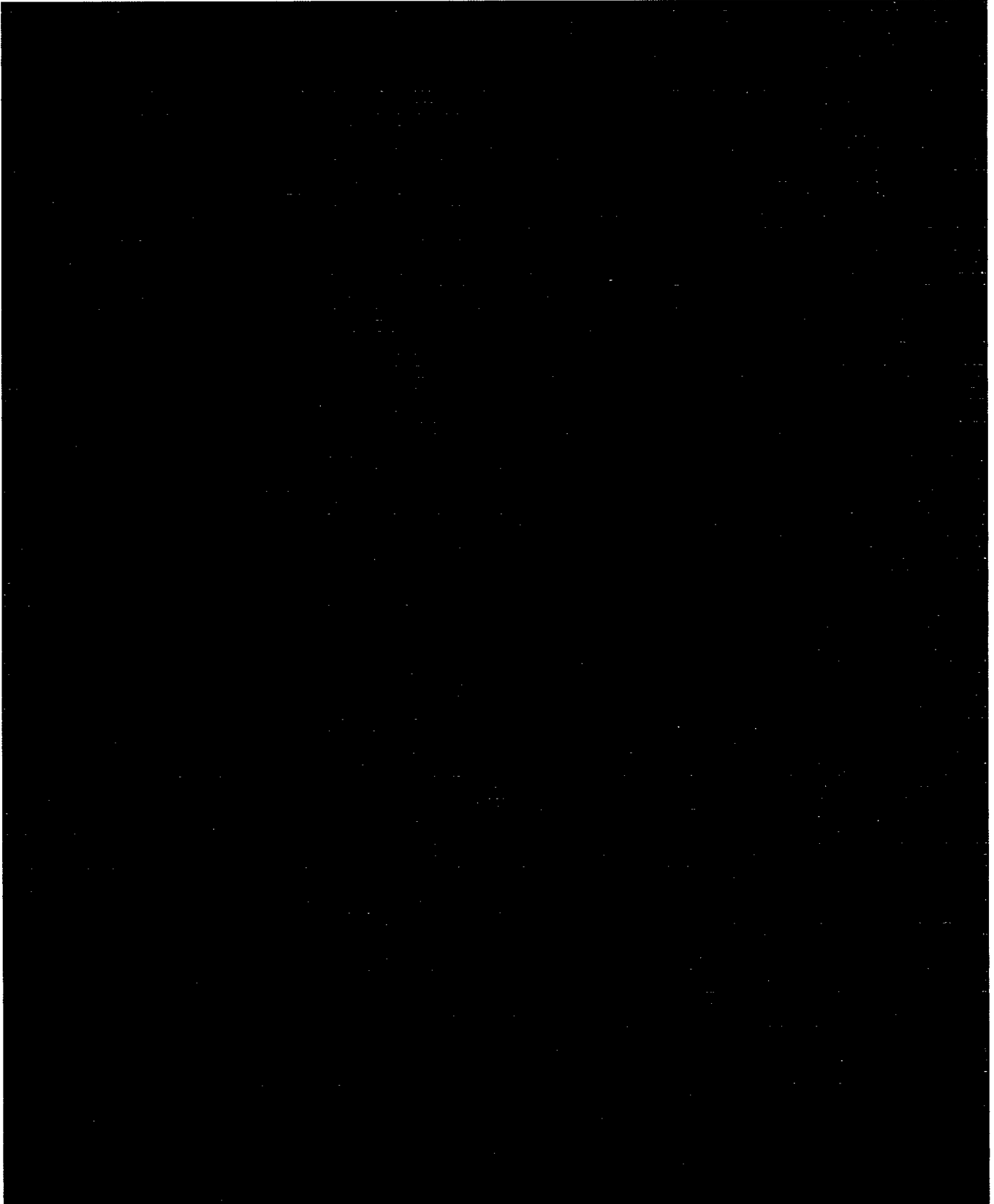
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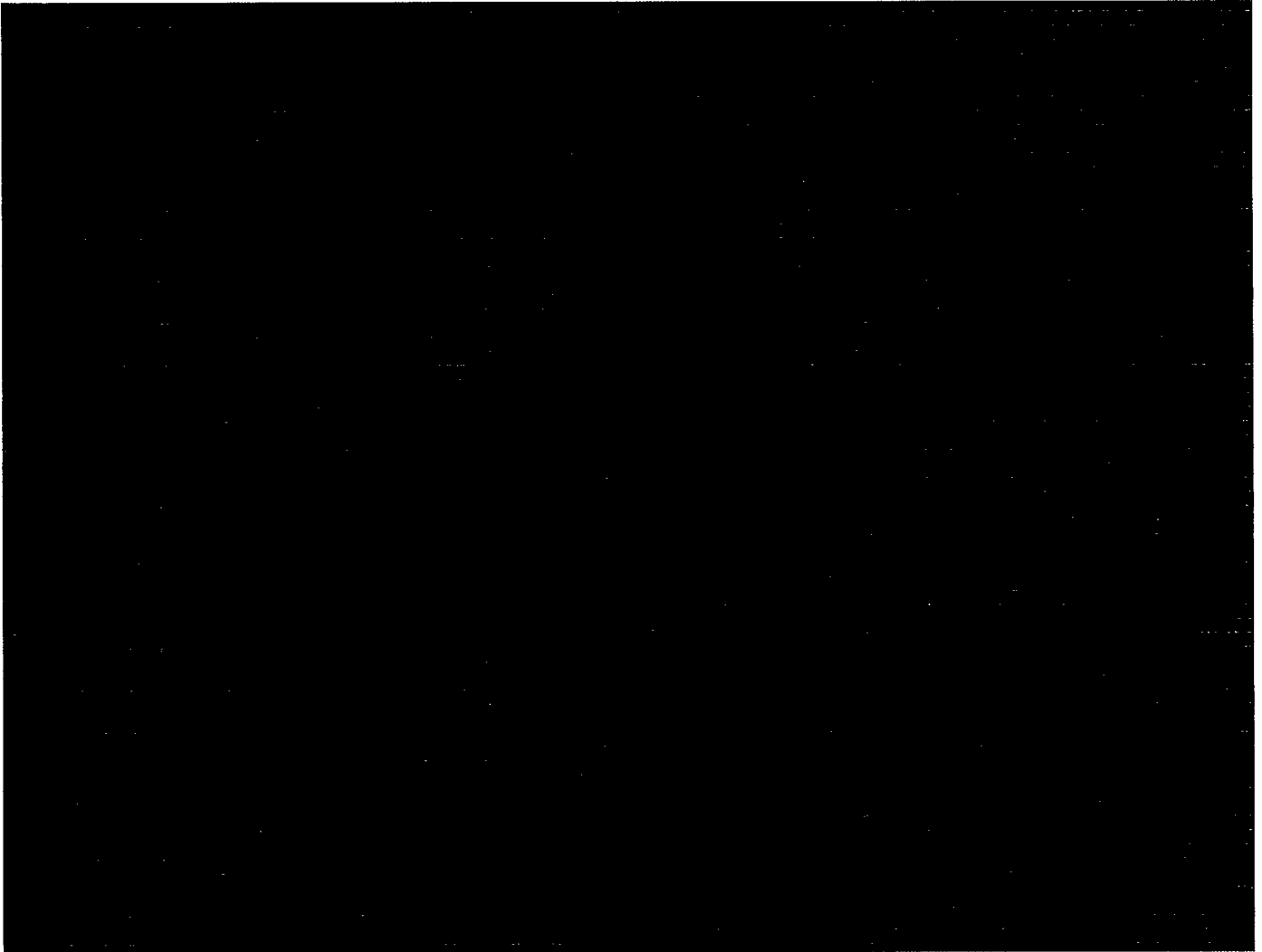
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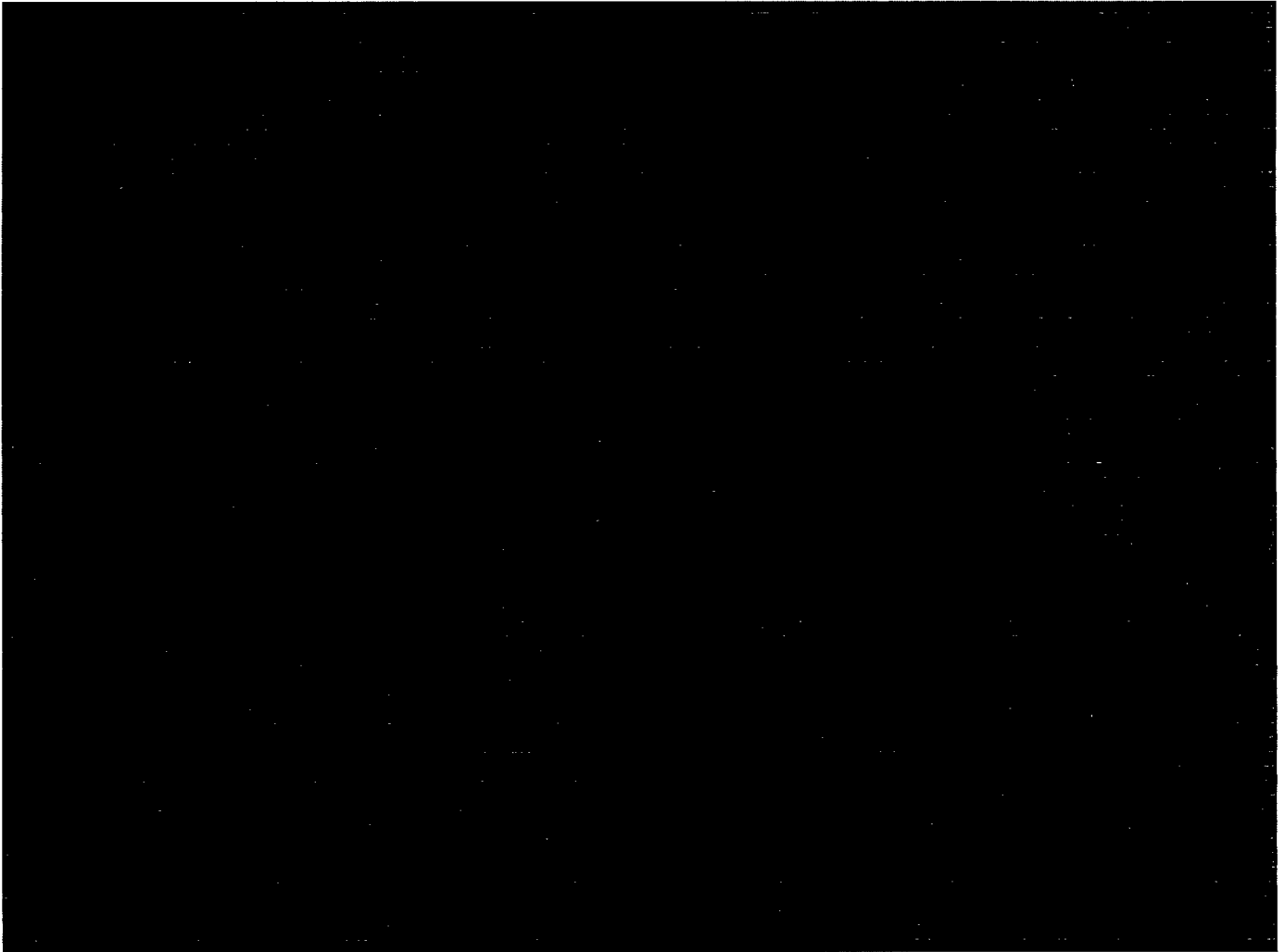




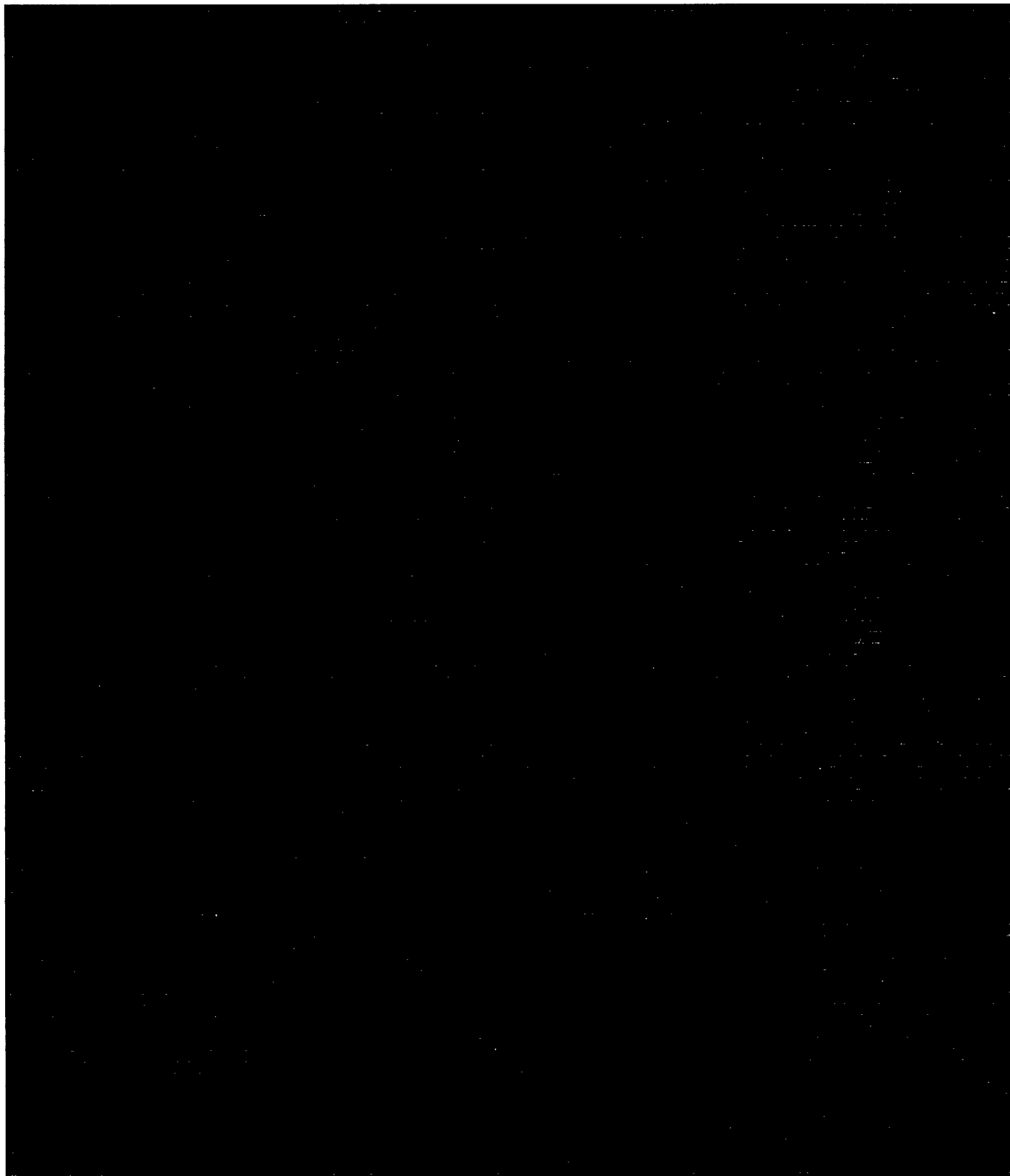
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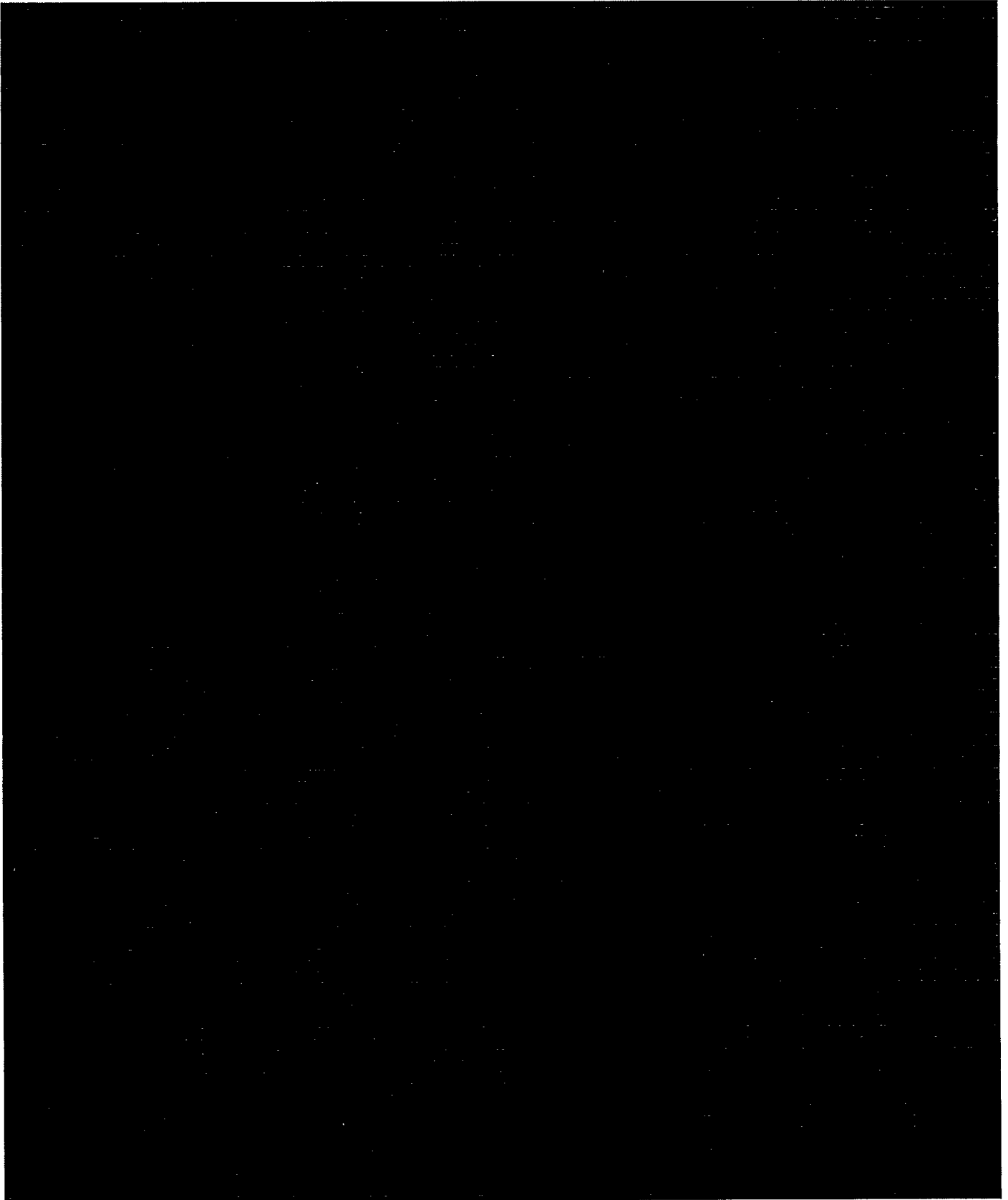
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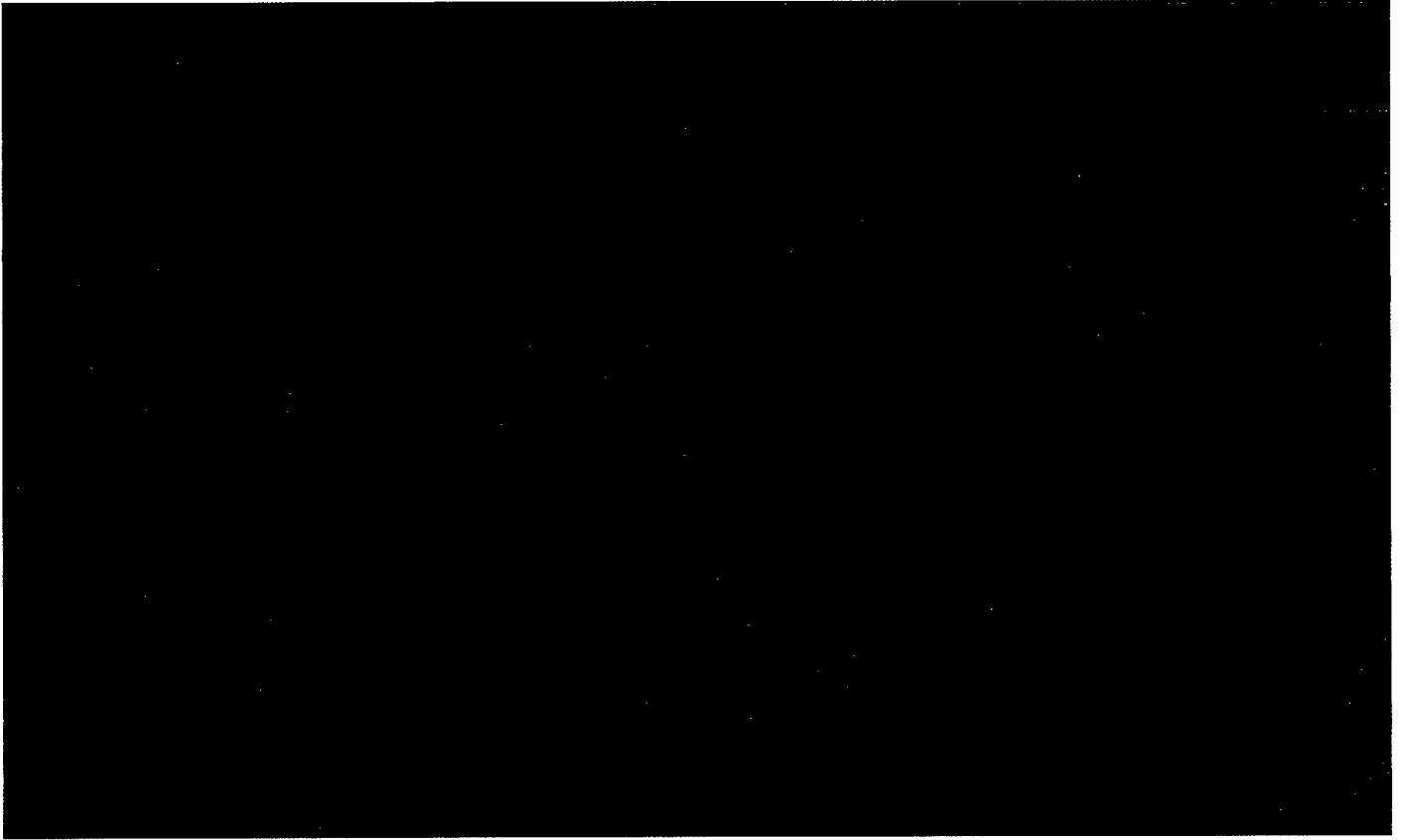
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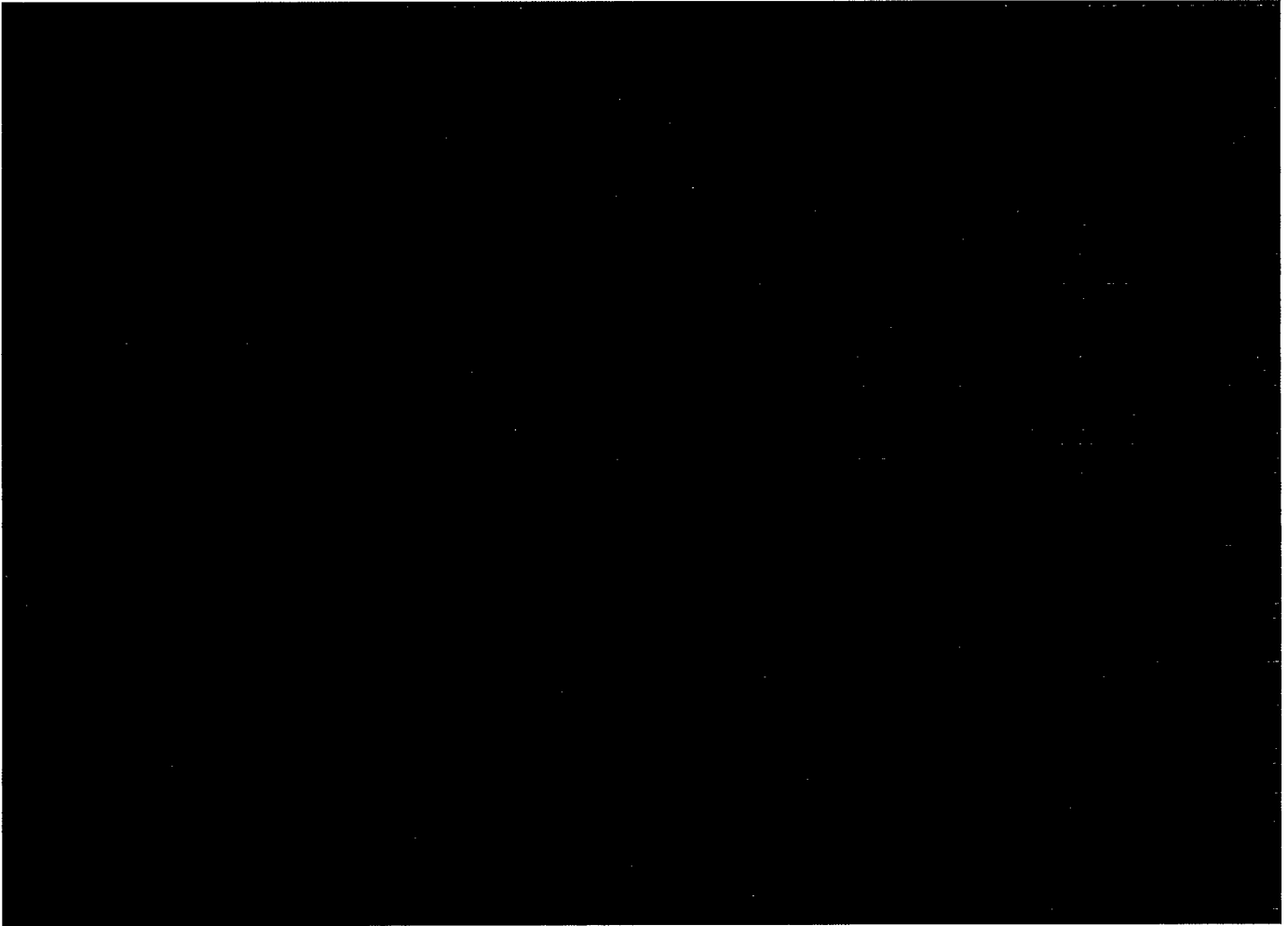
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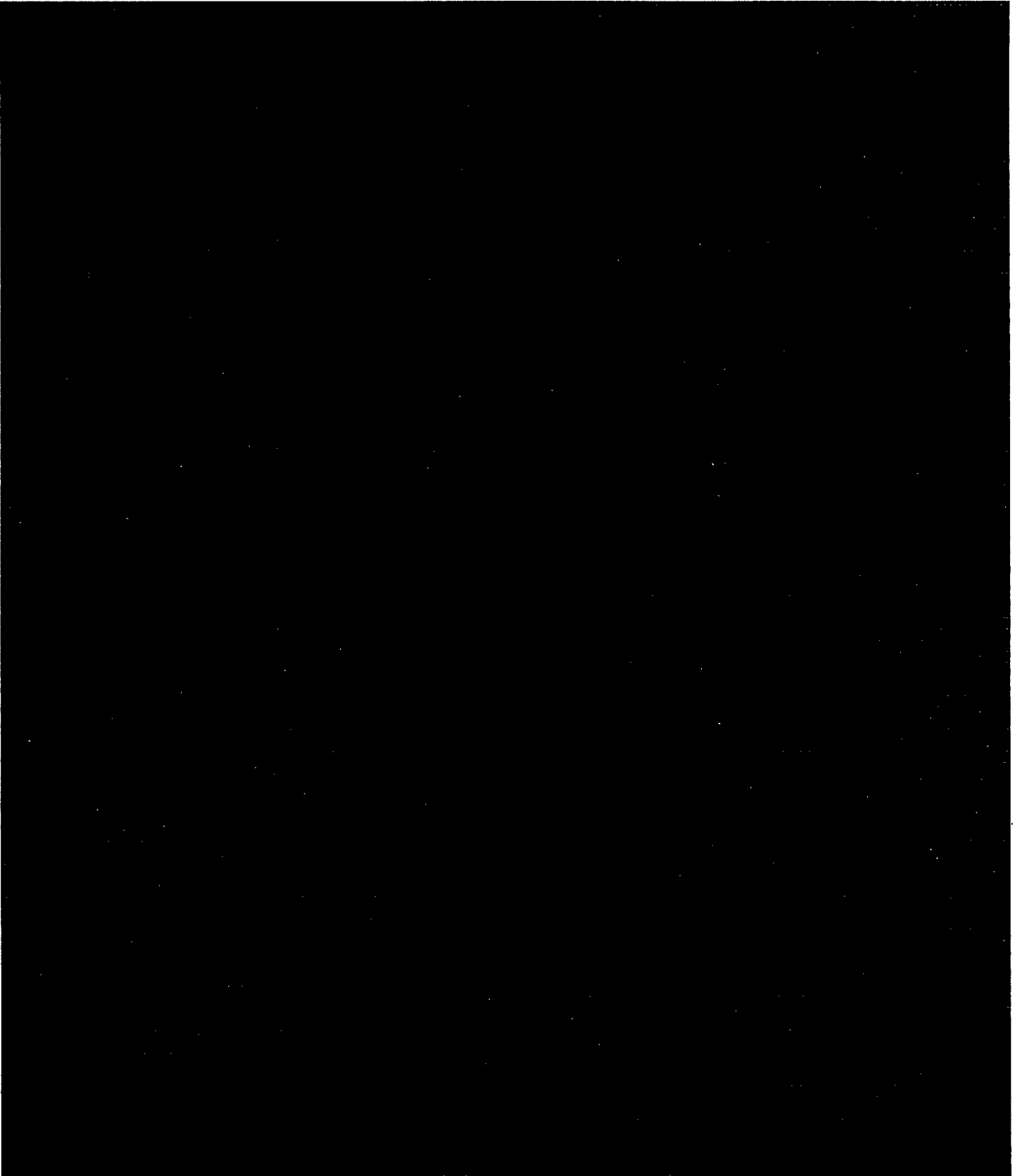


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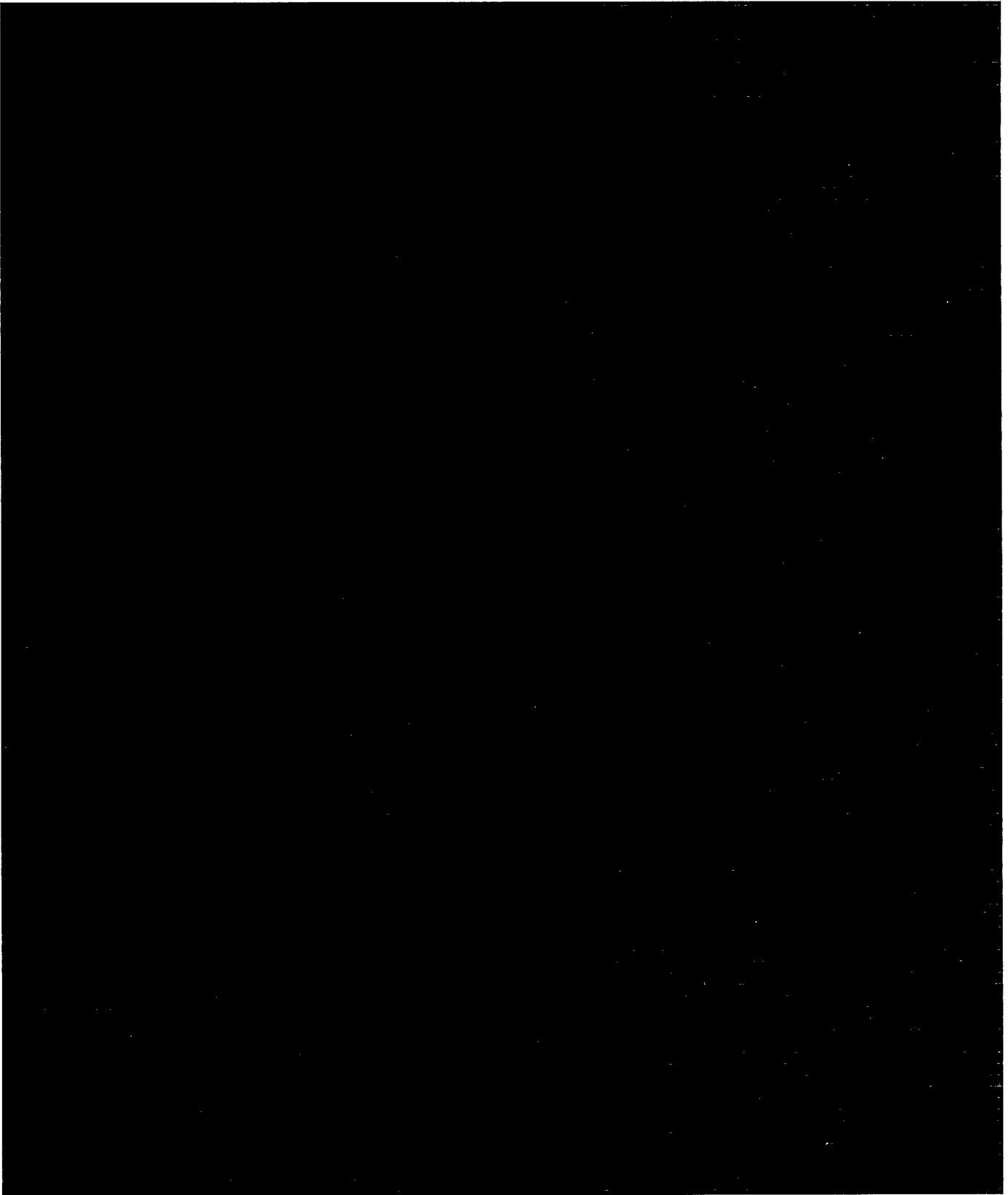




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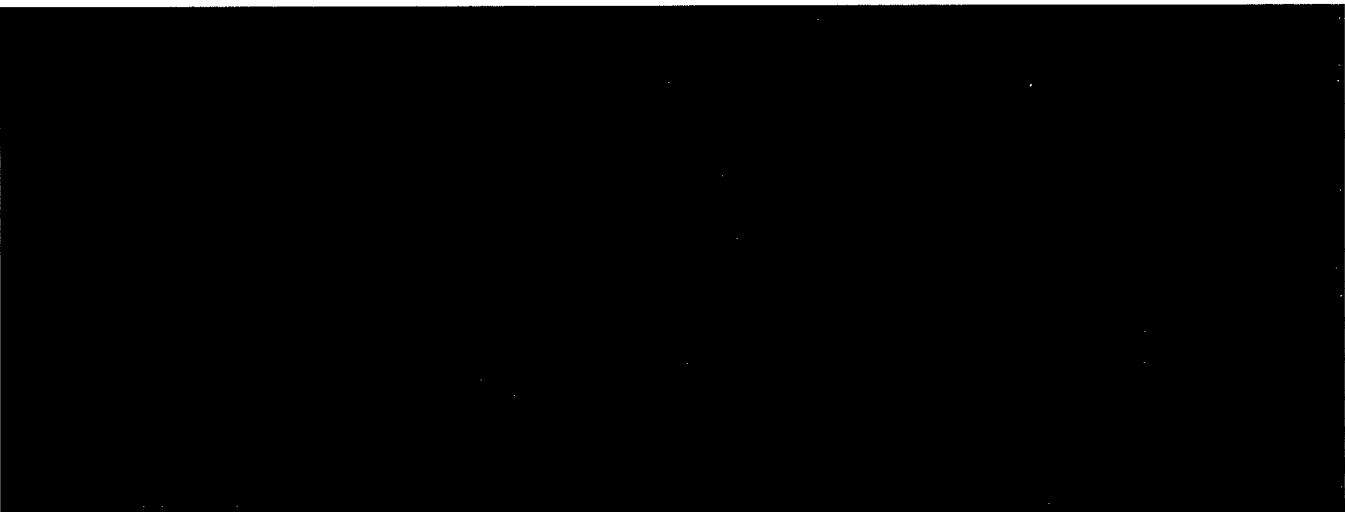
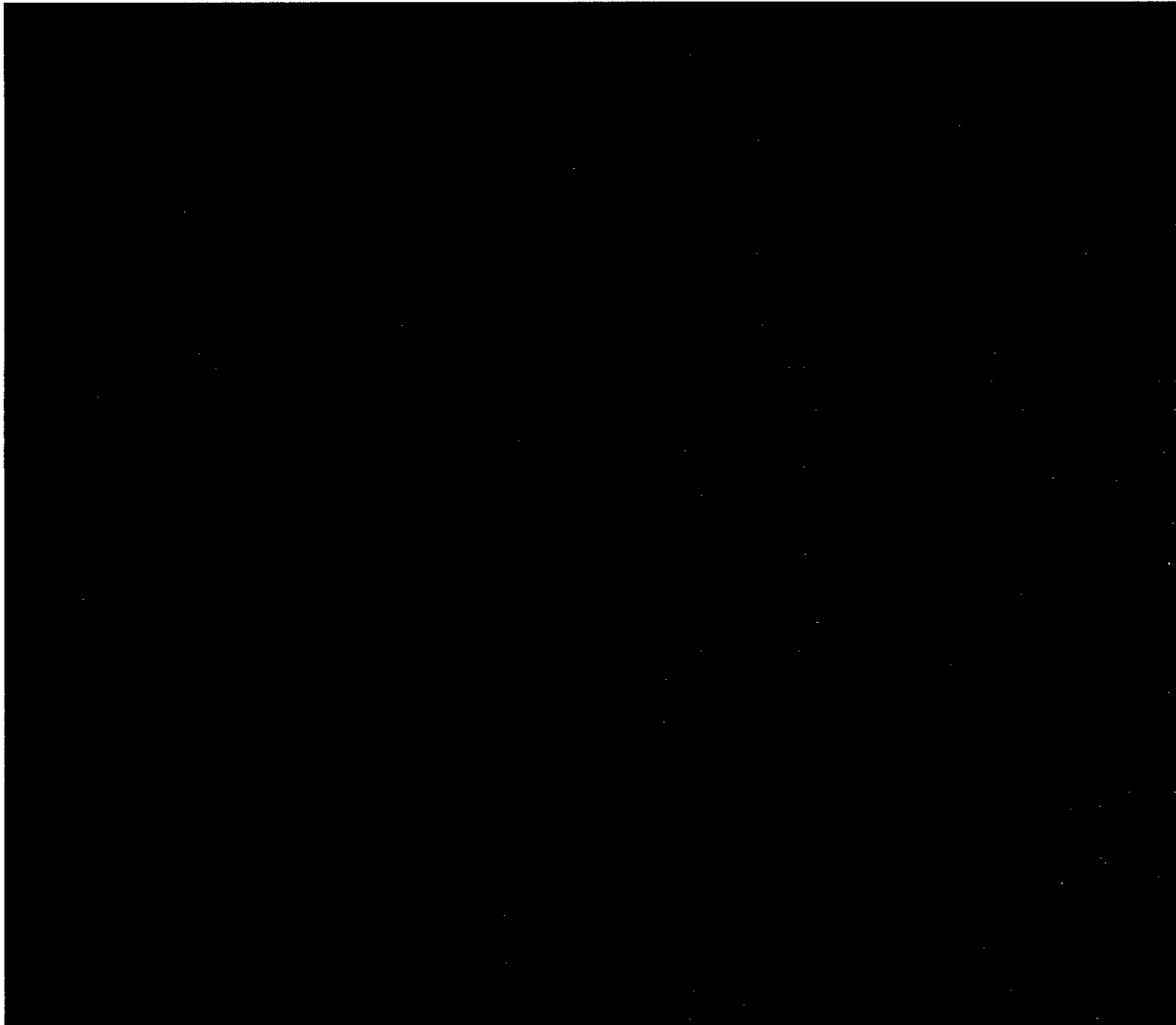
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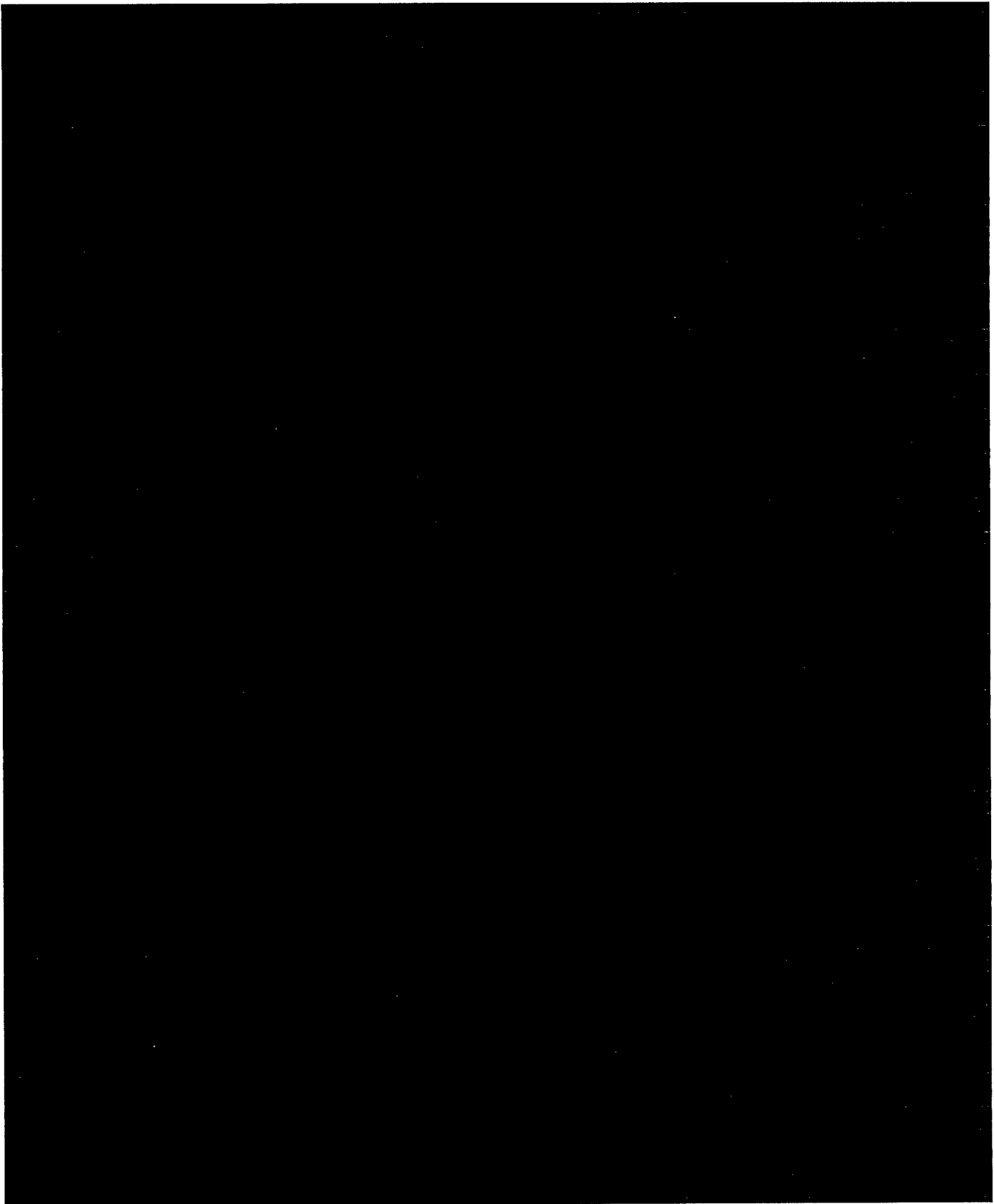
## Appendix E: Gray Data by Year, Stratum, and Call Sign



Appendix F: Average Distant Metrics for Sample Stations 2010-13

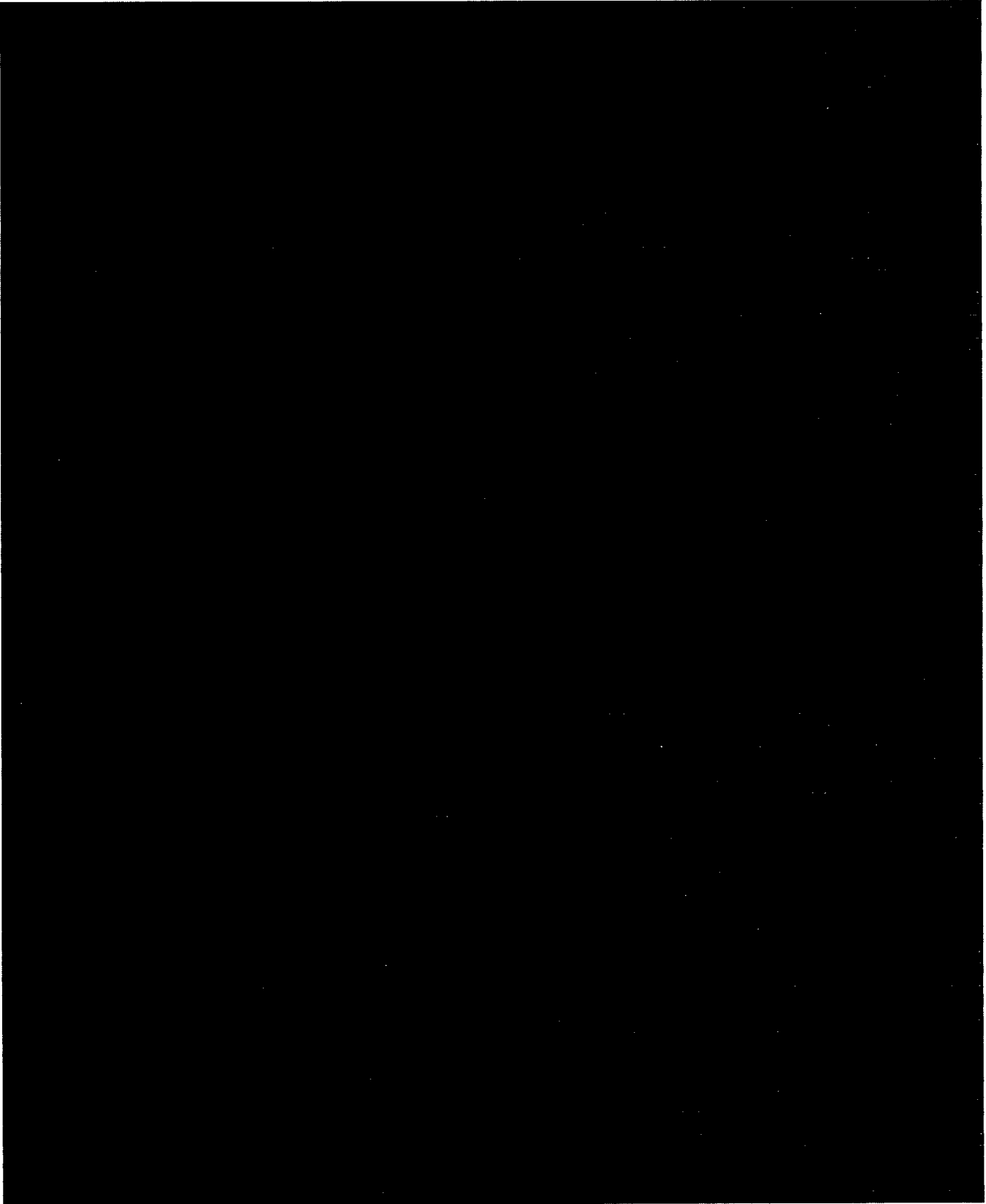


## Appendix F: Average Distant Metrics for Sample Stations 2010-13

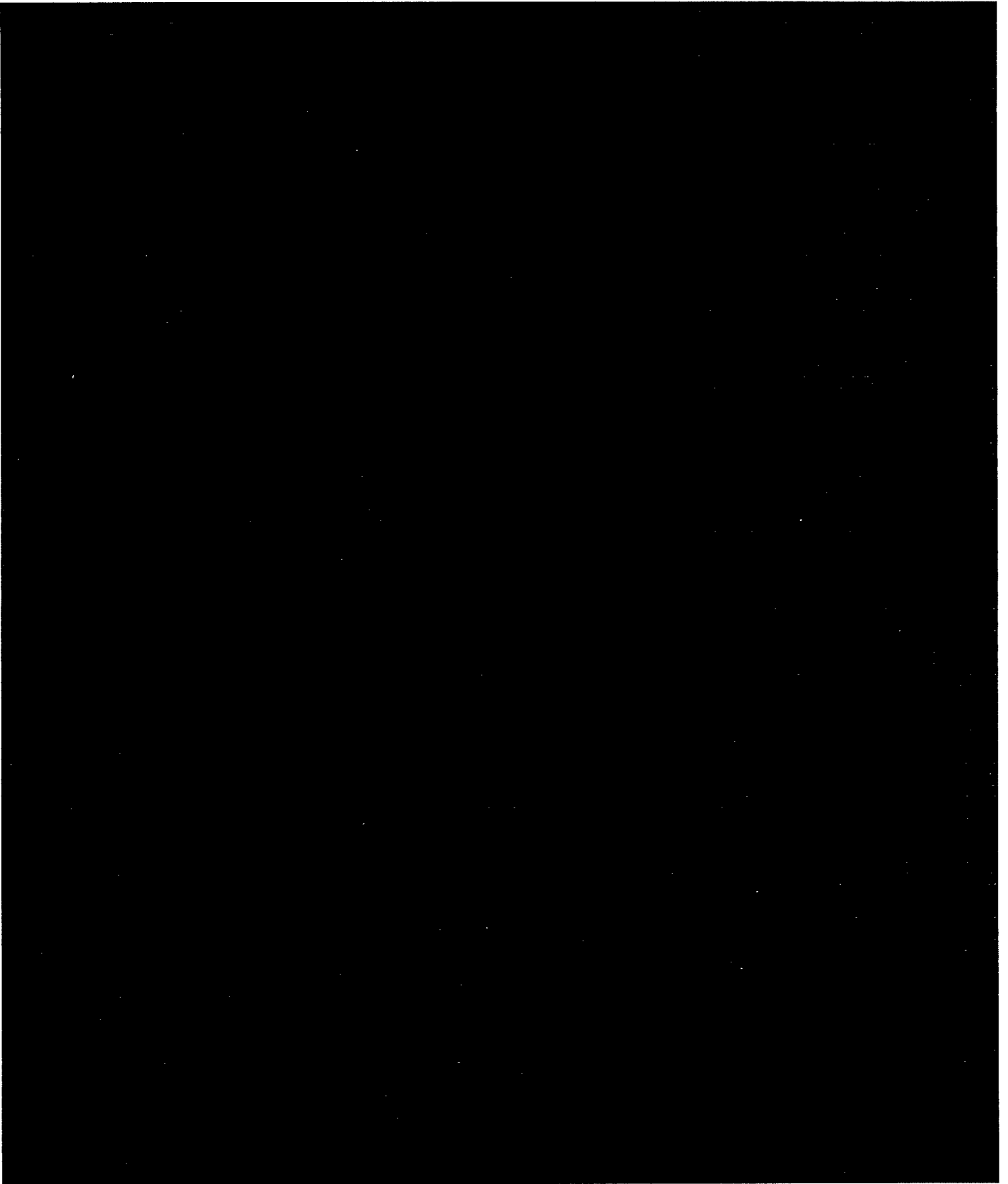




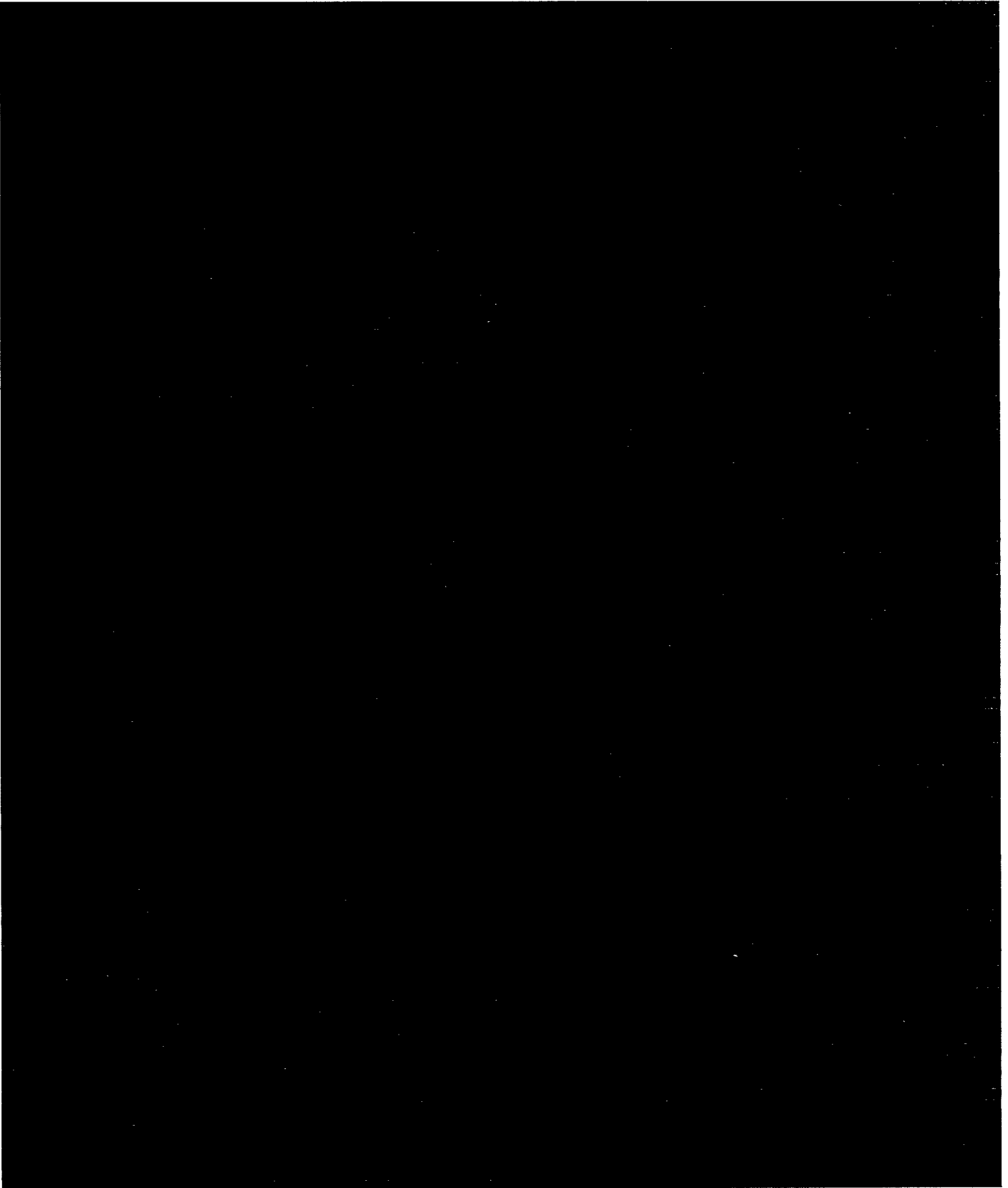
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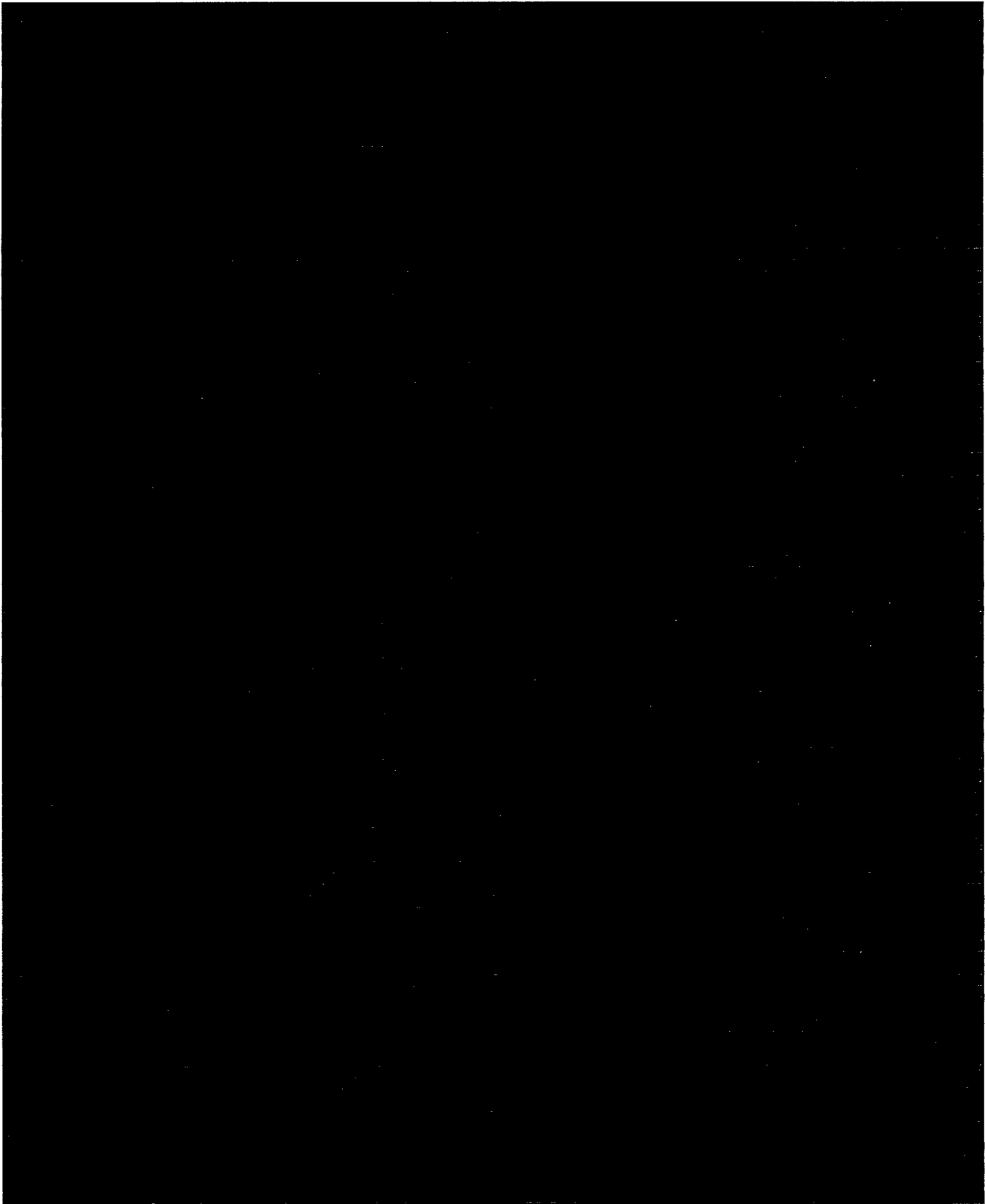
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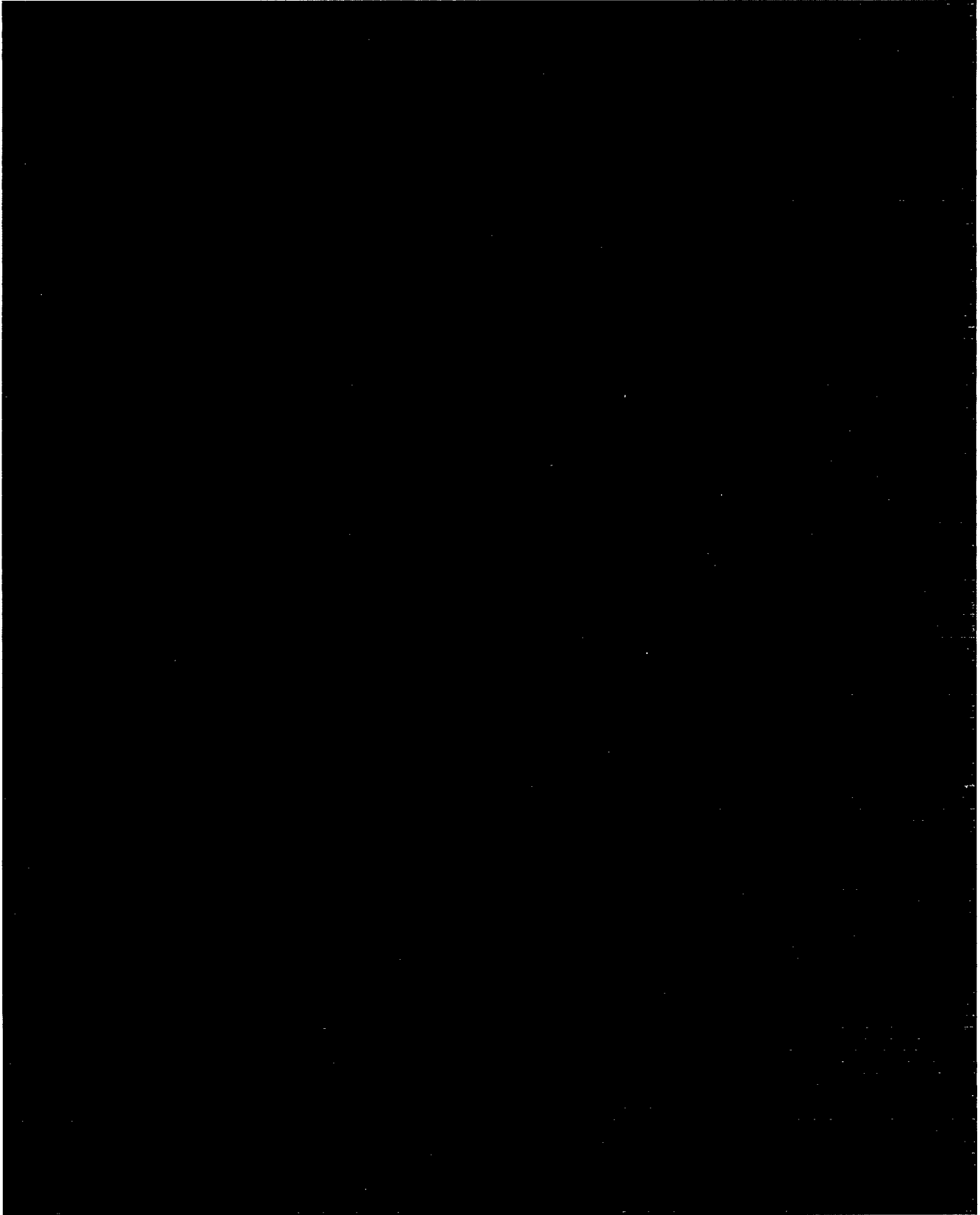
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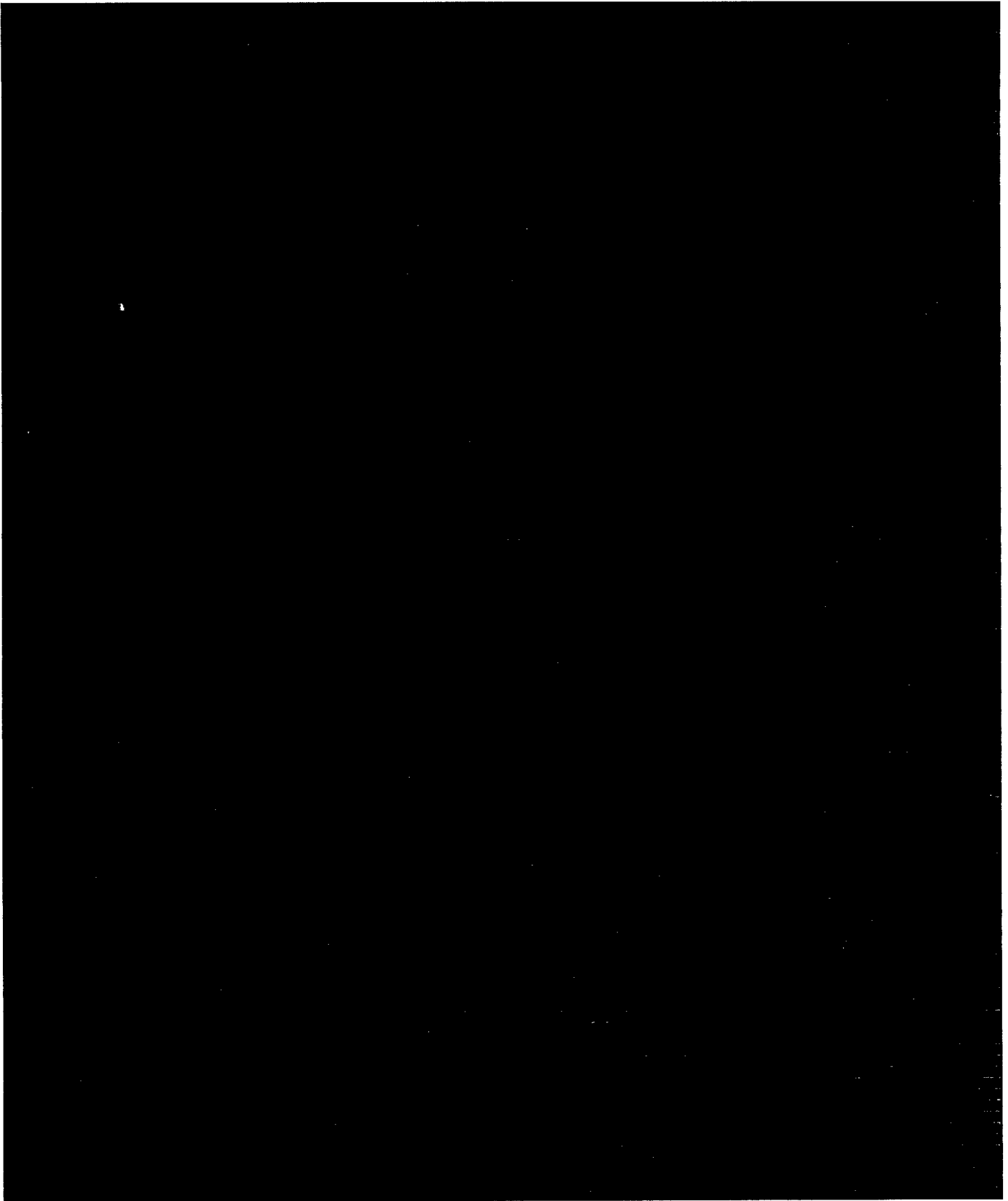
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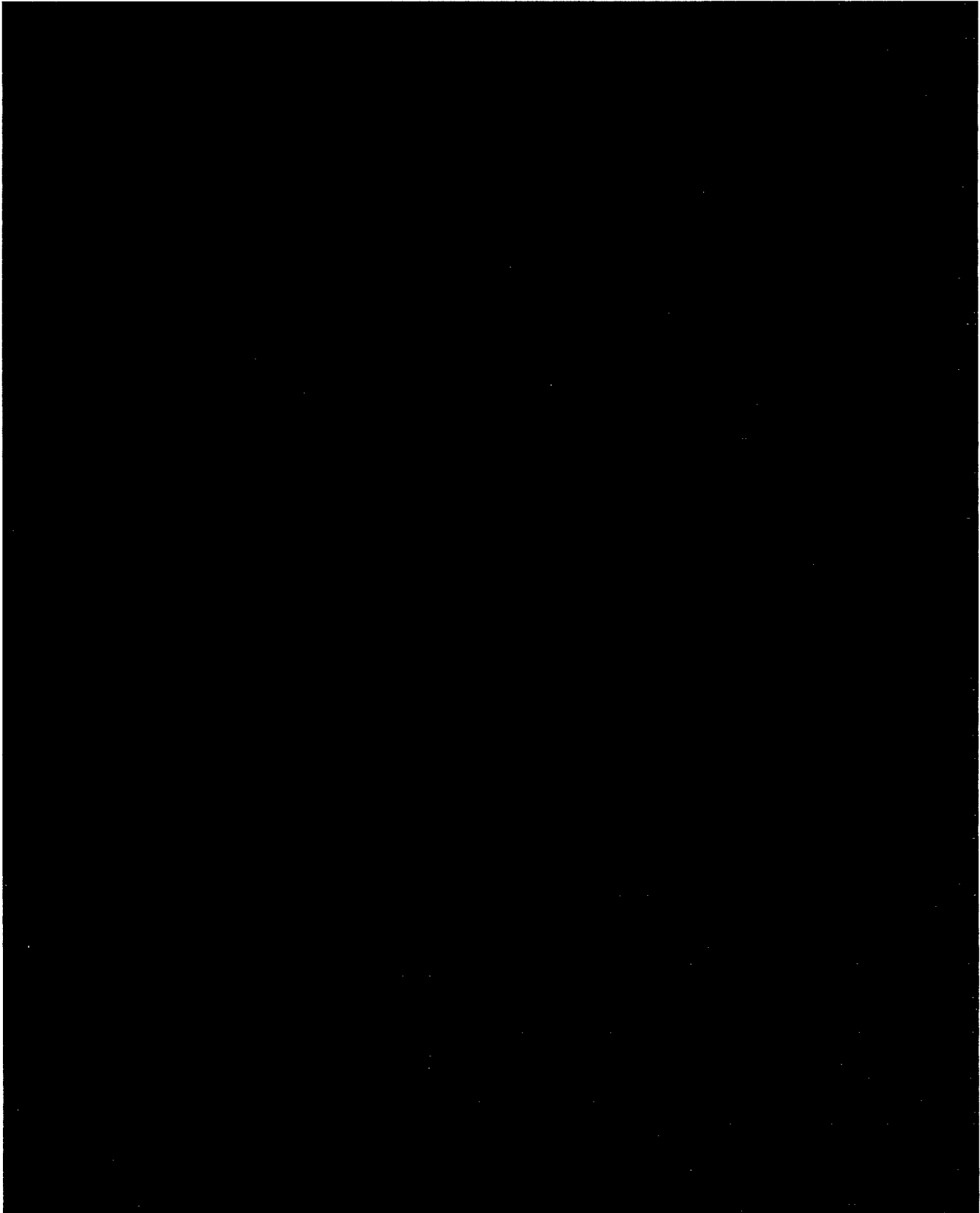
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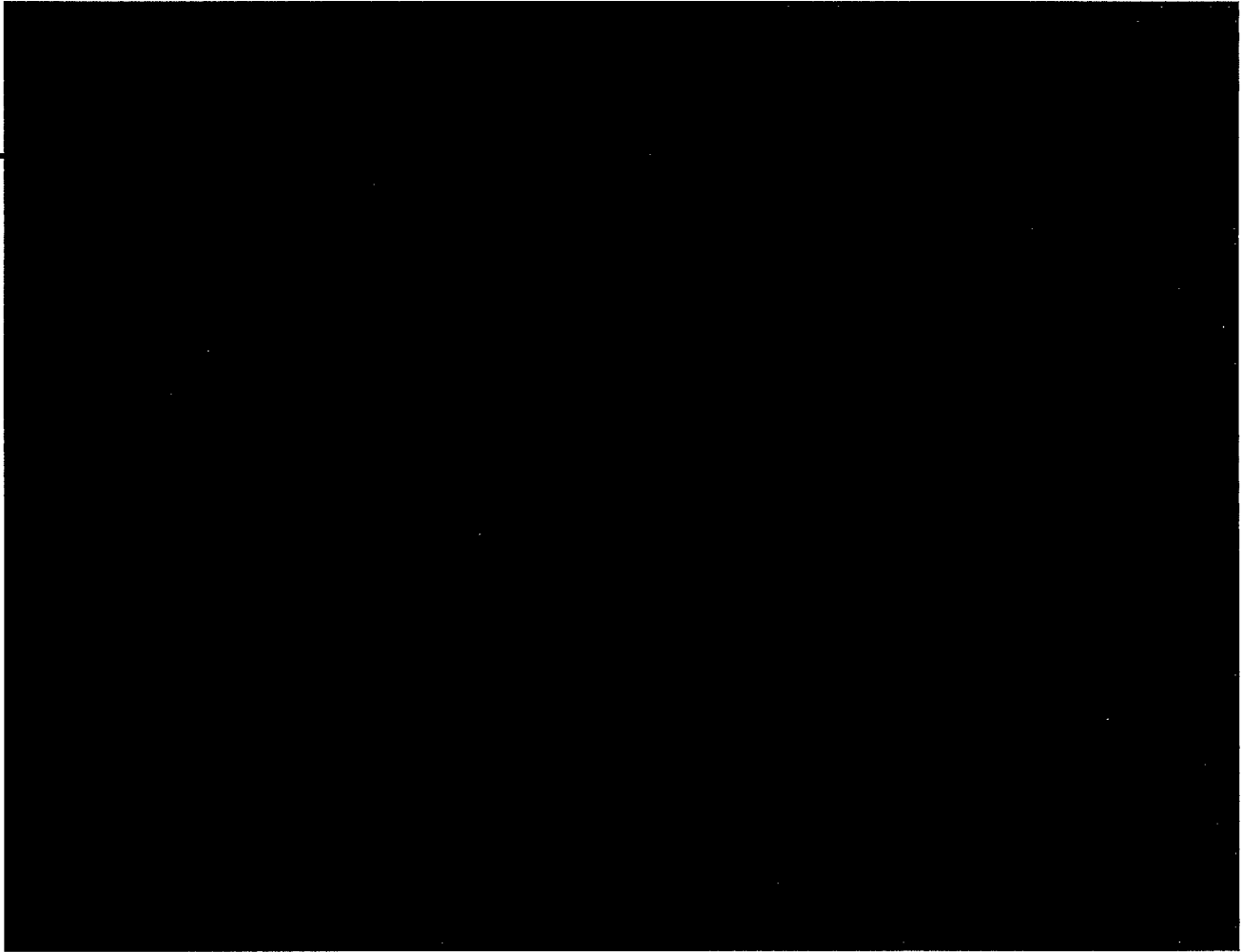
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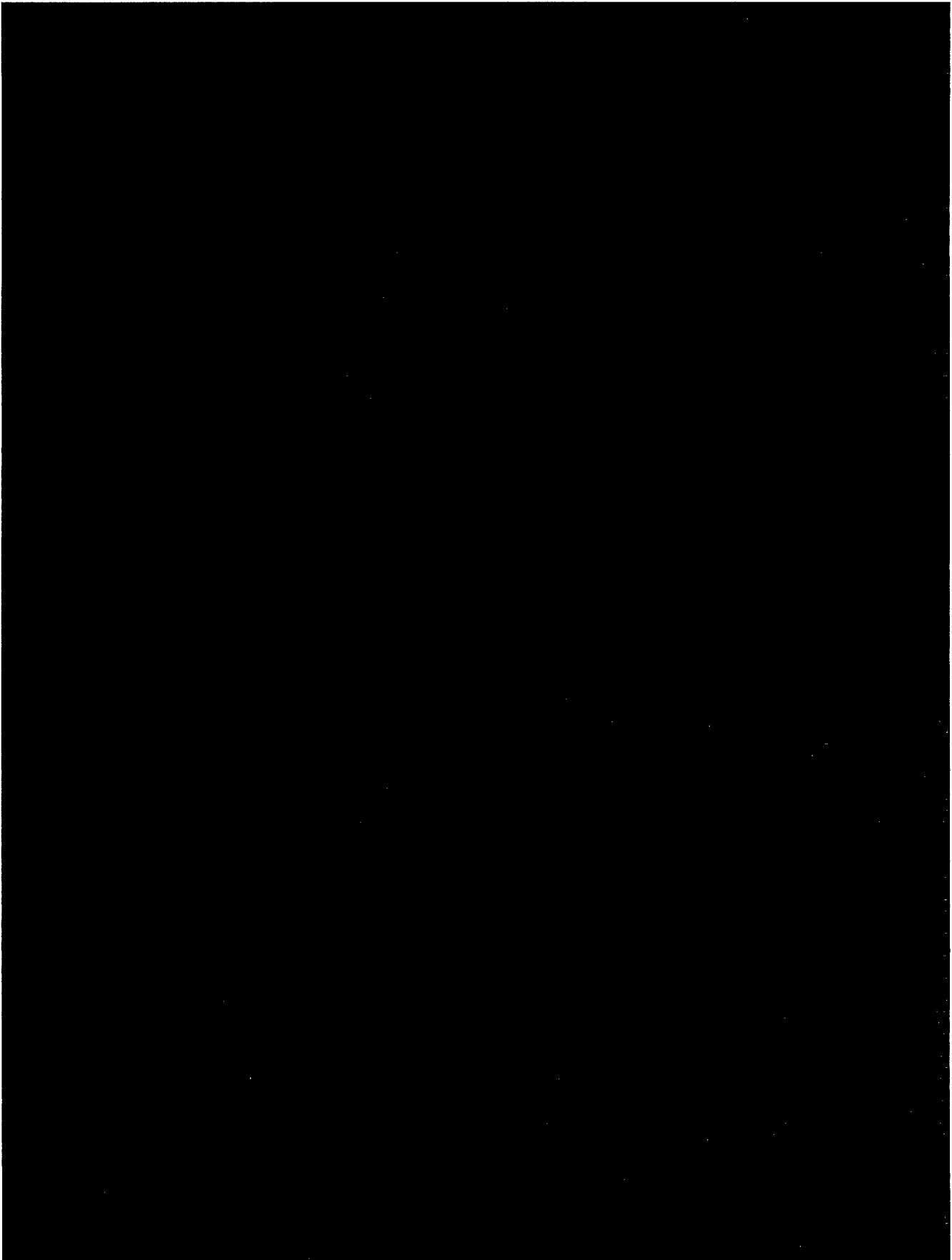


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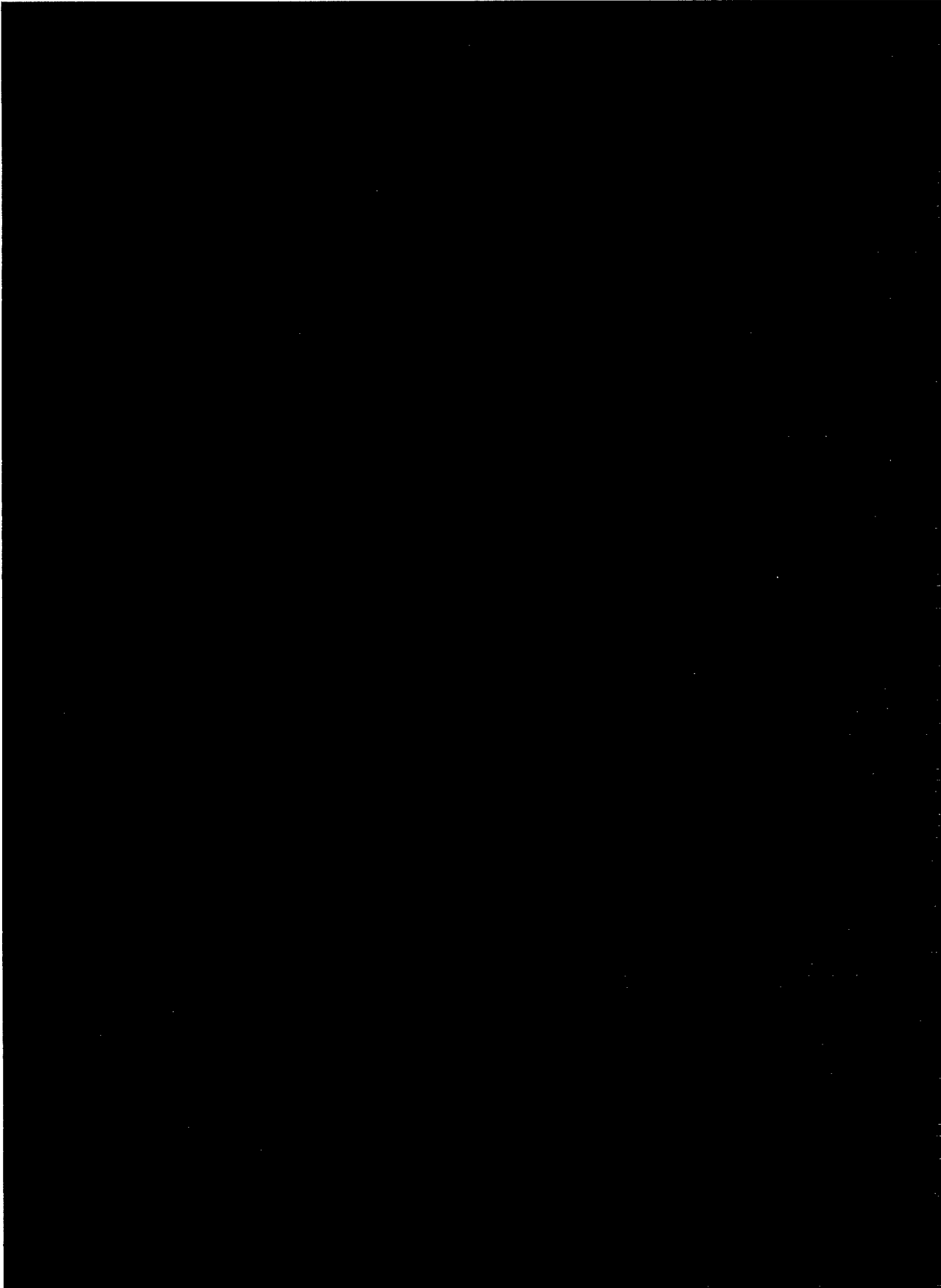




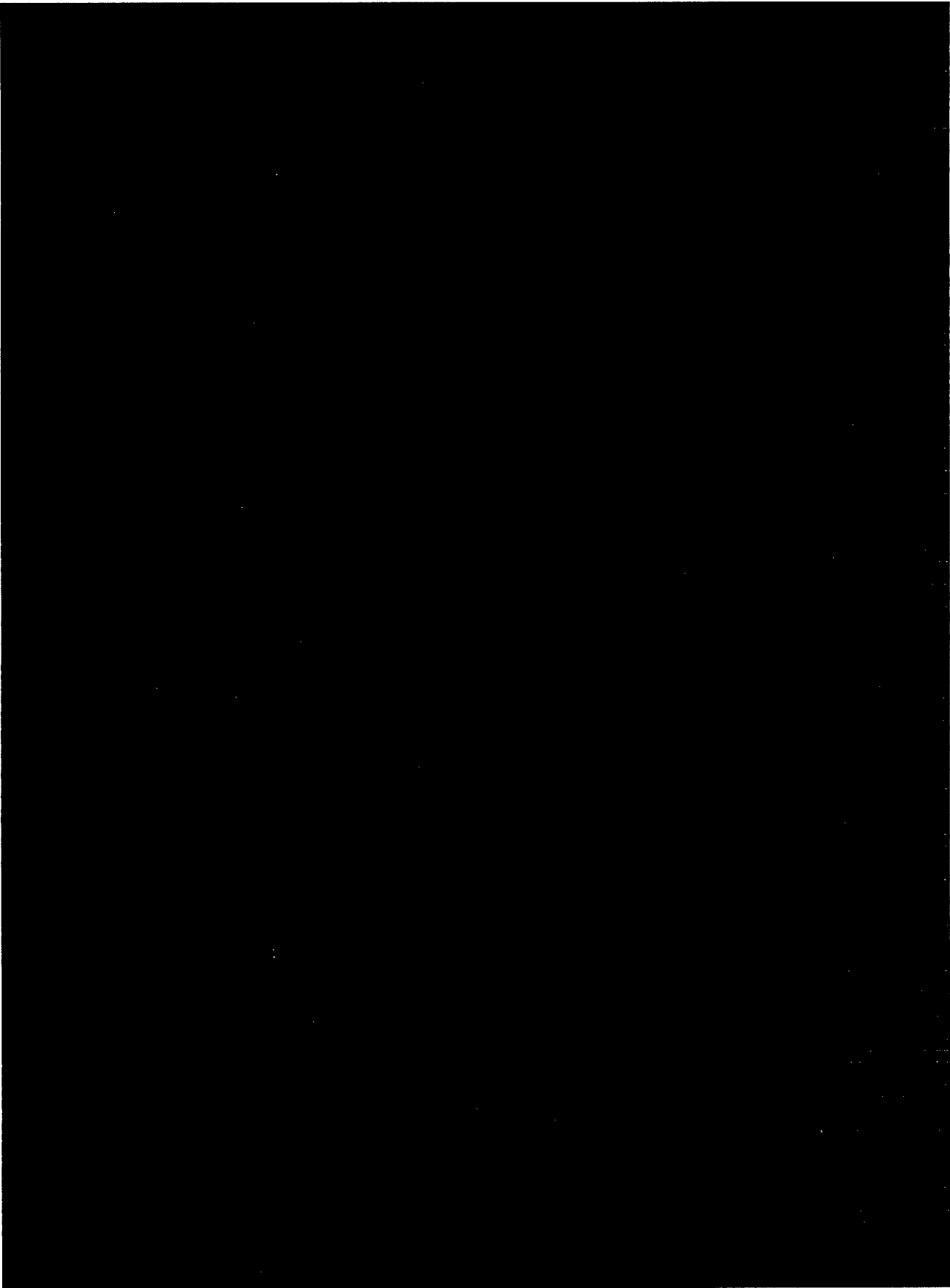
Appendix G: Select WGN Data For Distant Viewing Households Provided By Nielsen To MLB



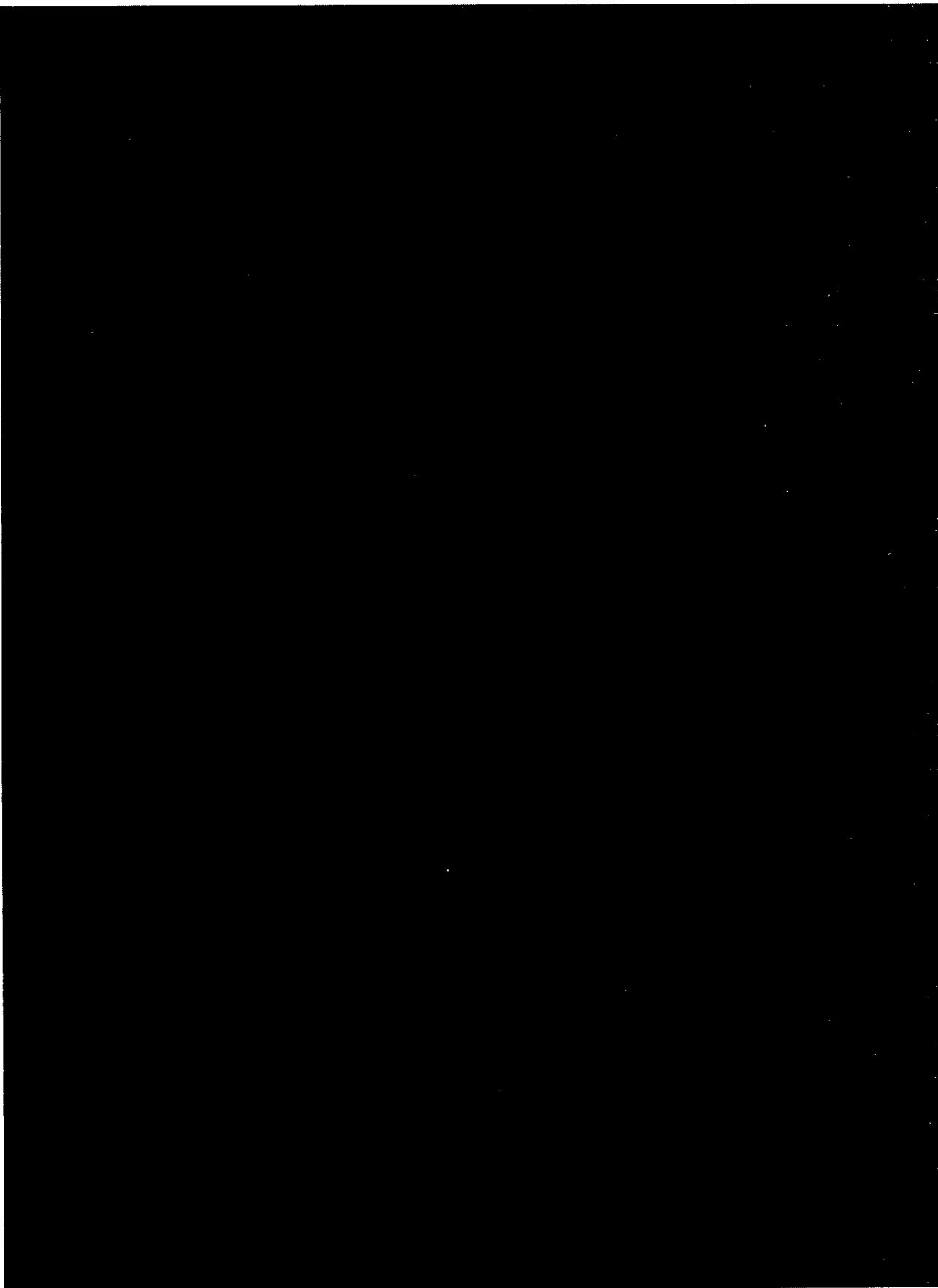
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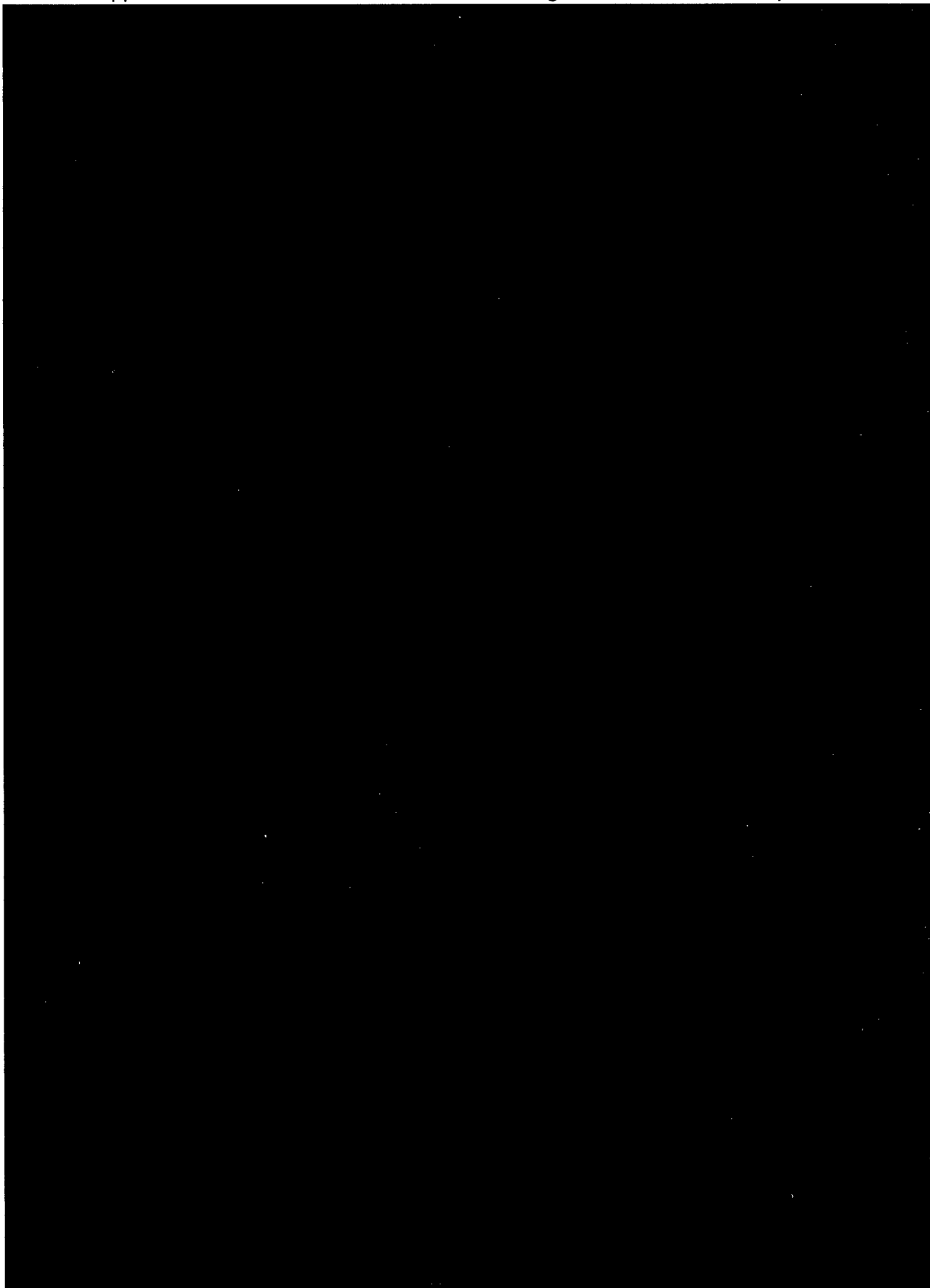
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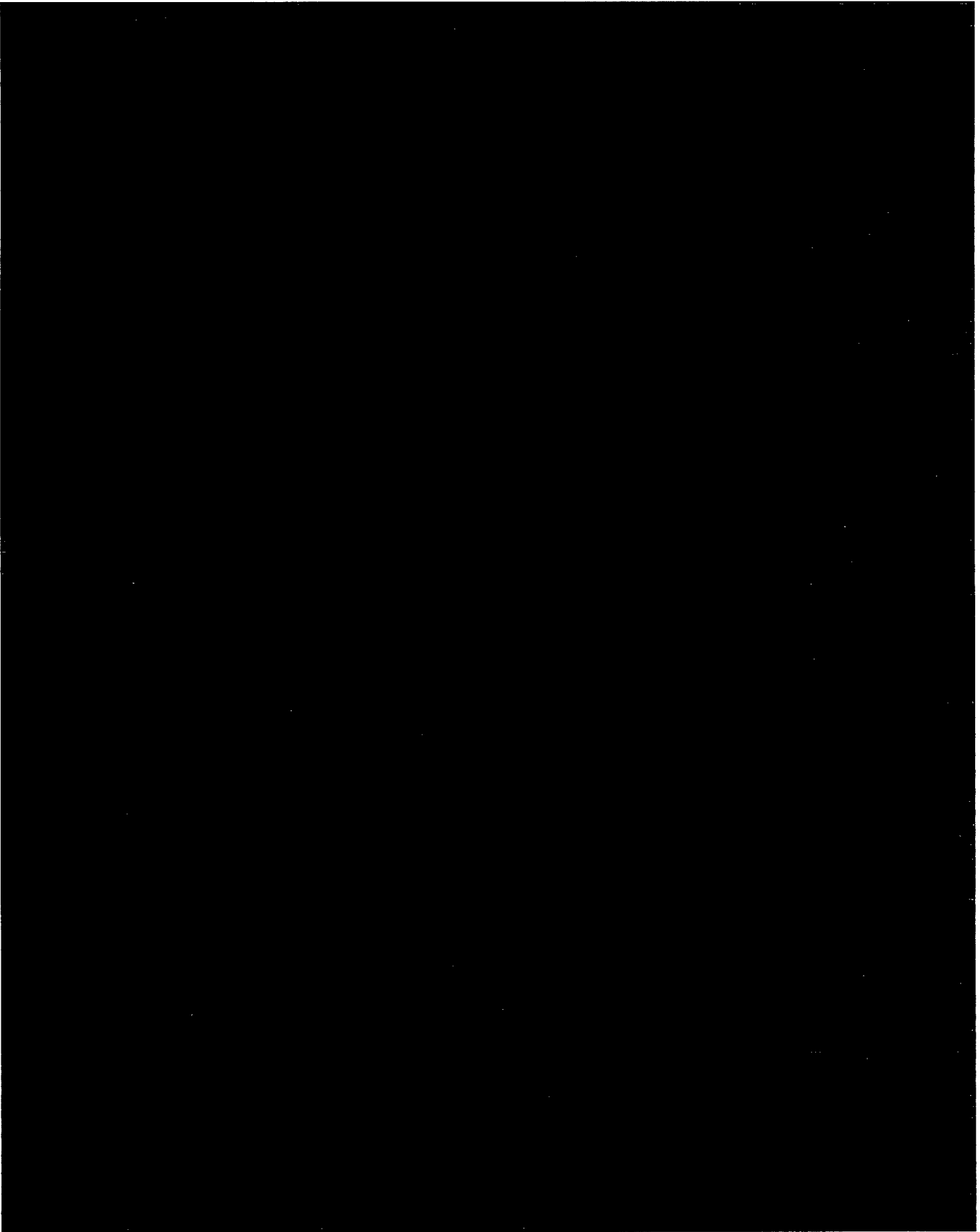
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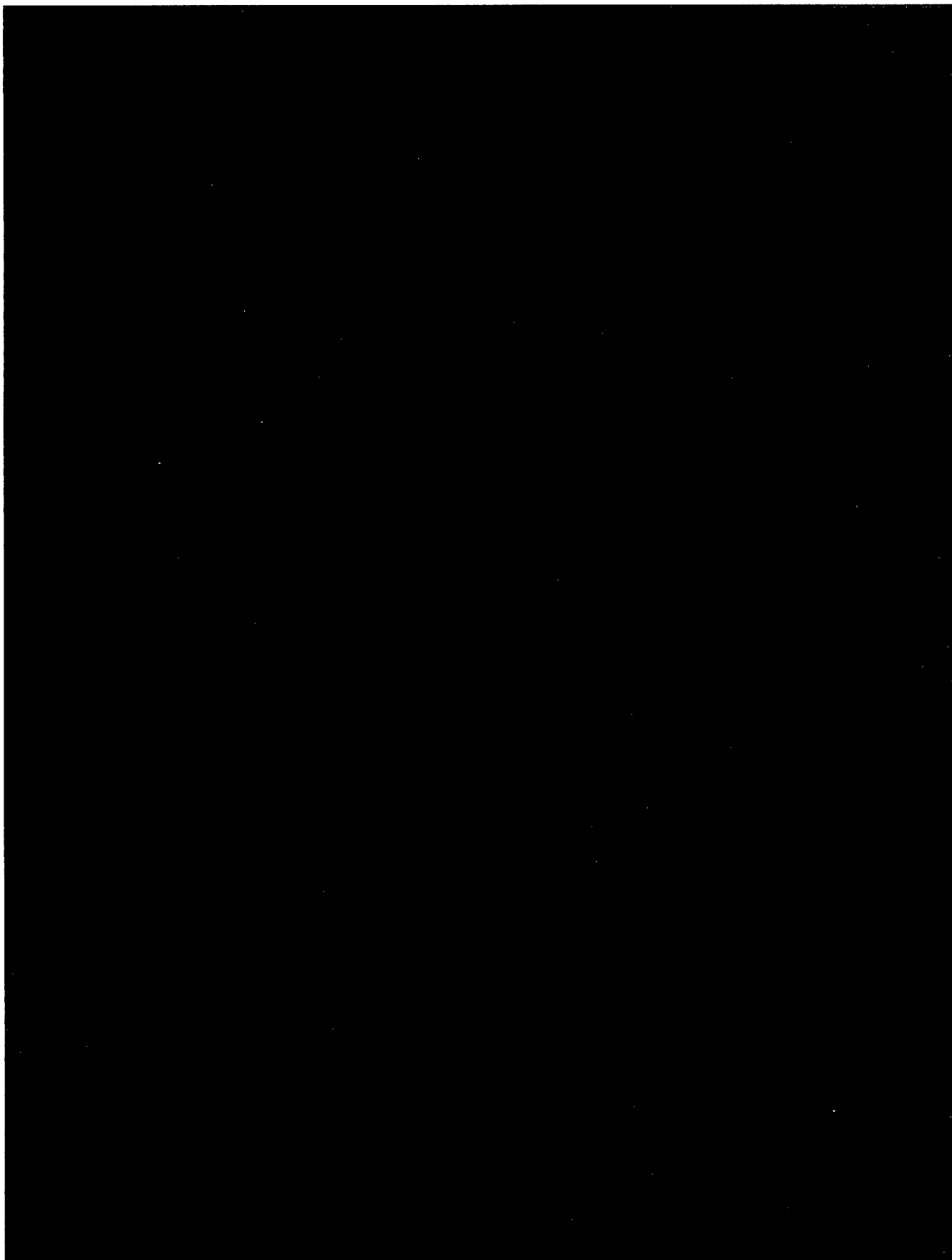
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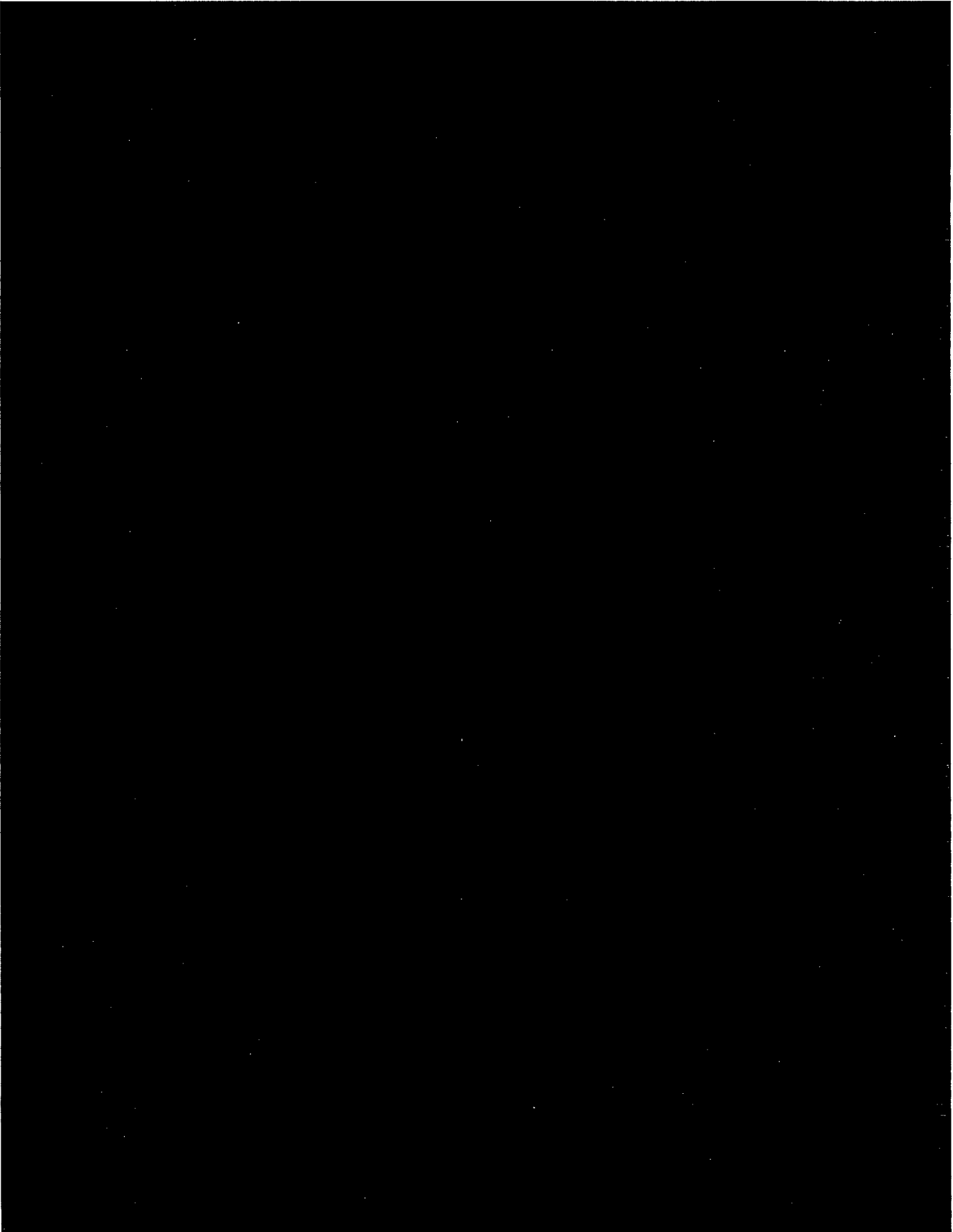
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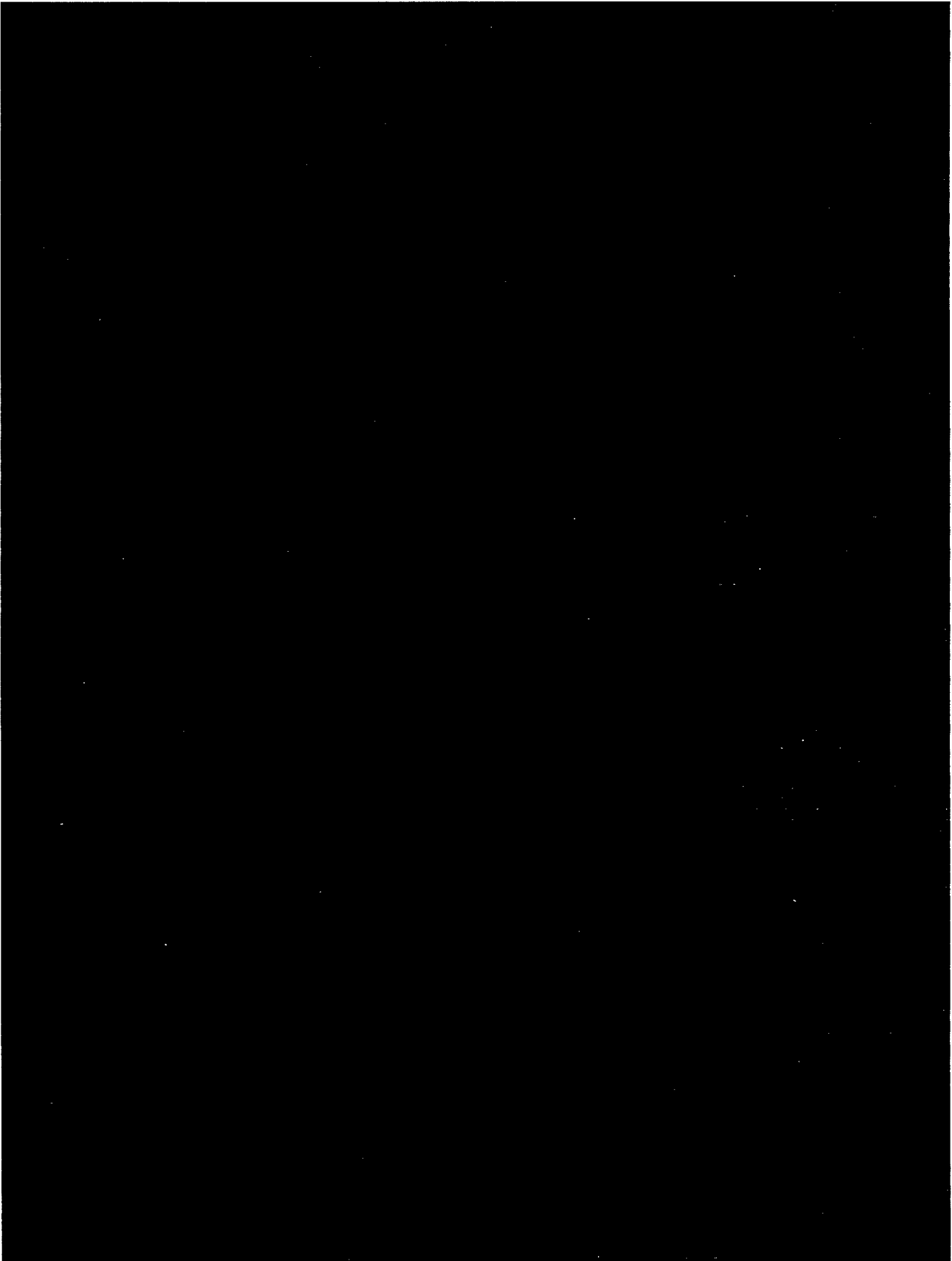


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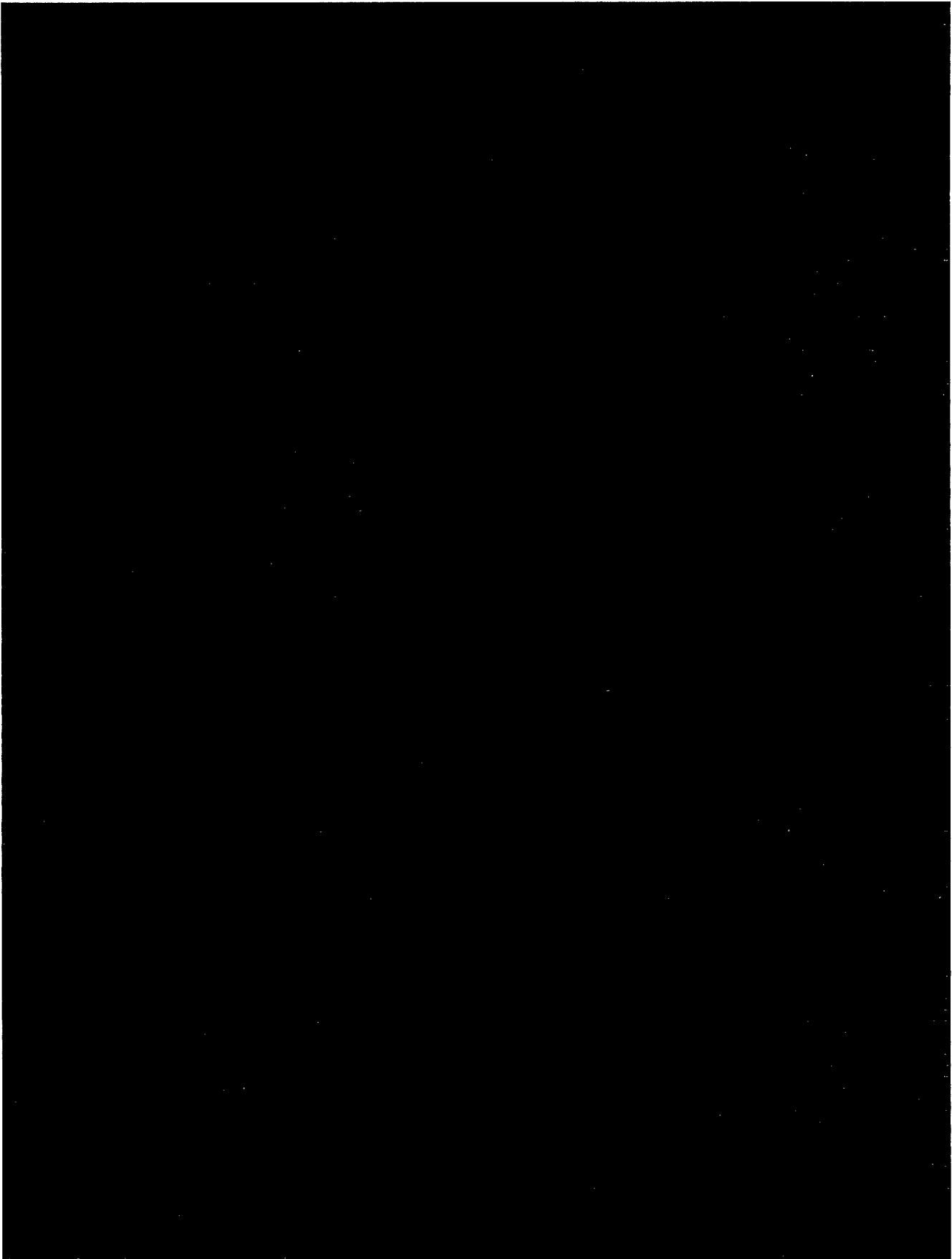




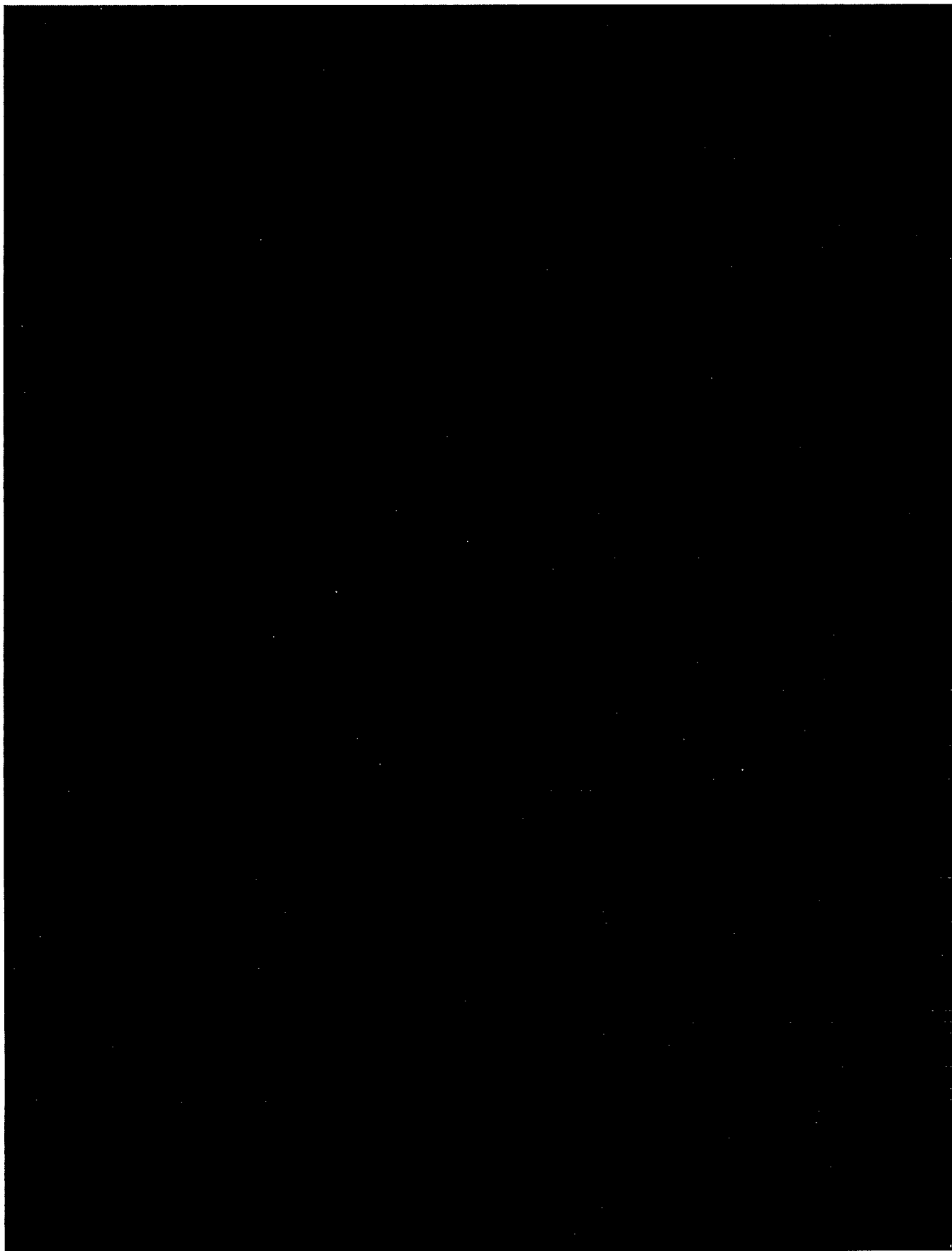
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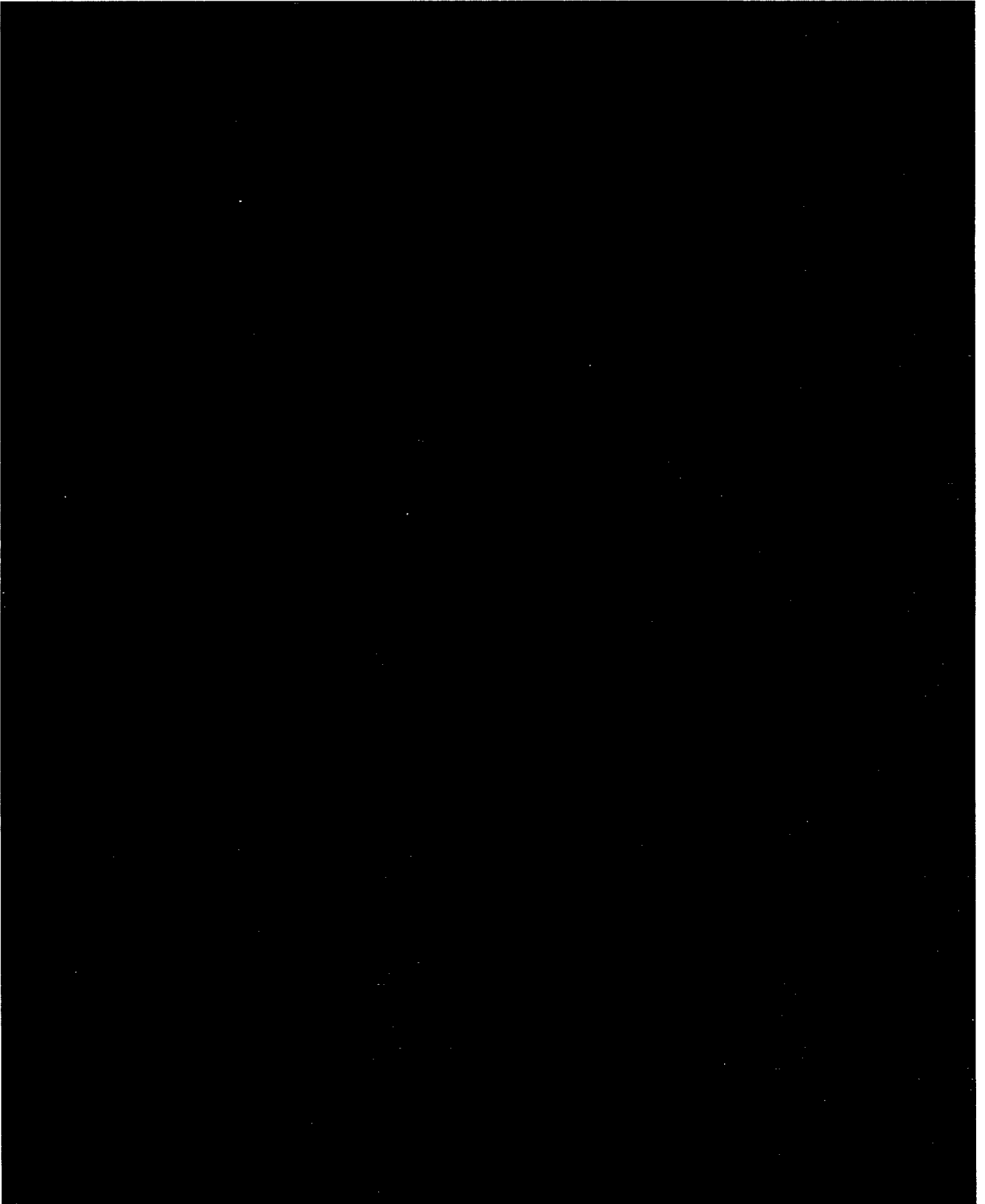
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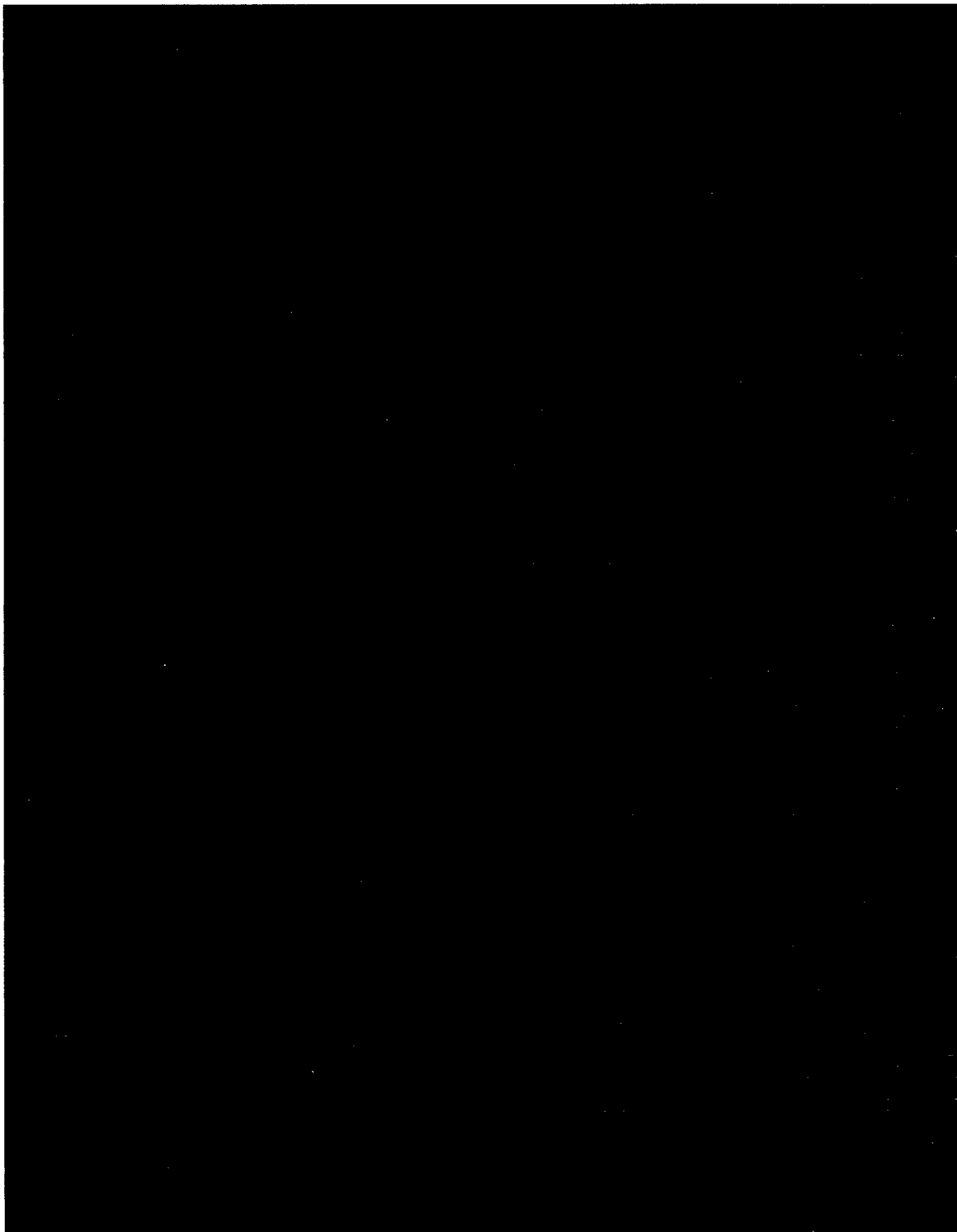
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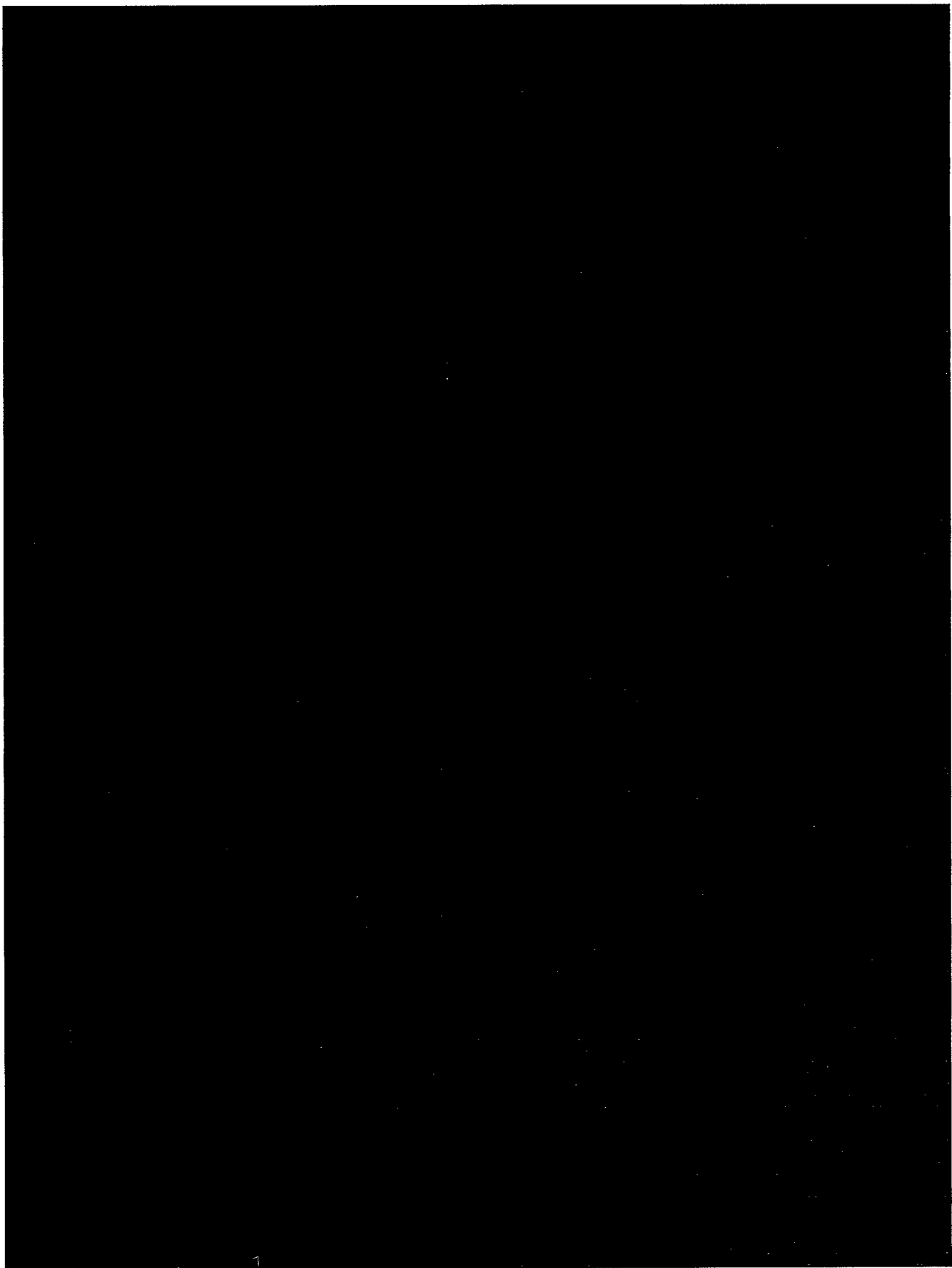
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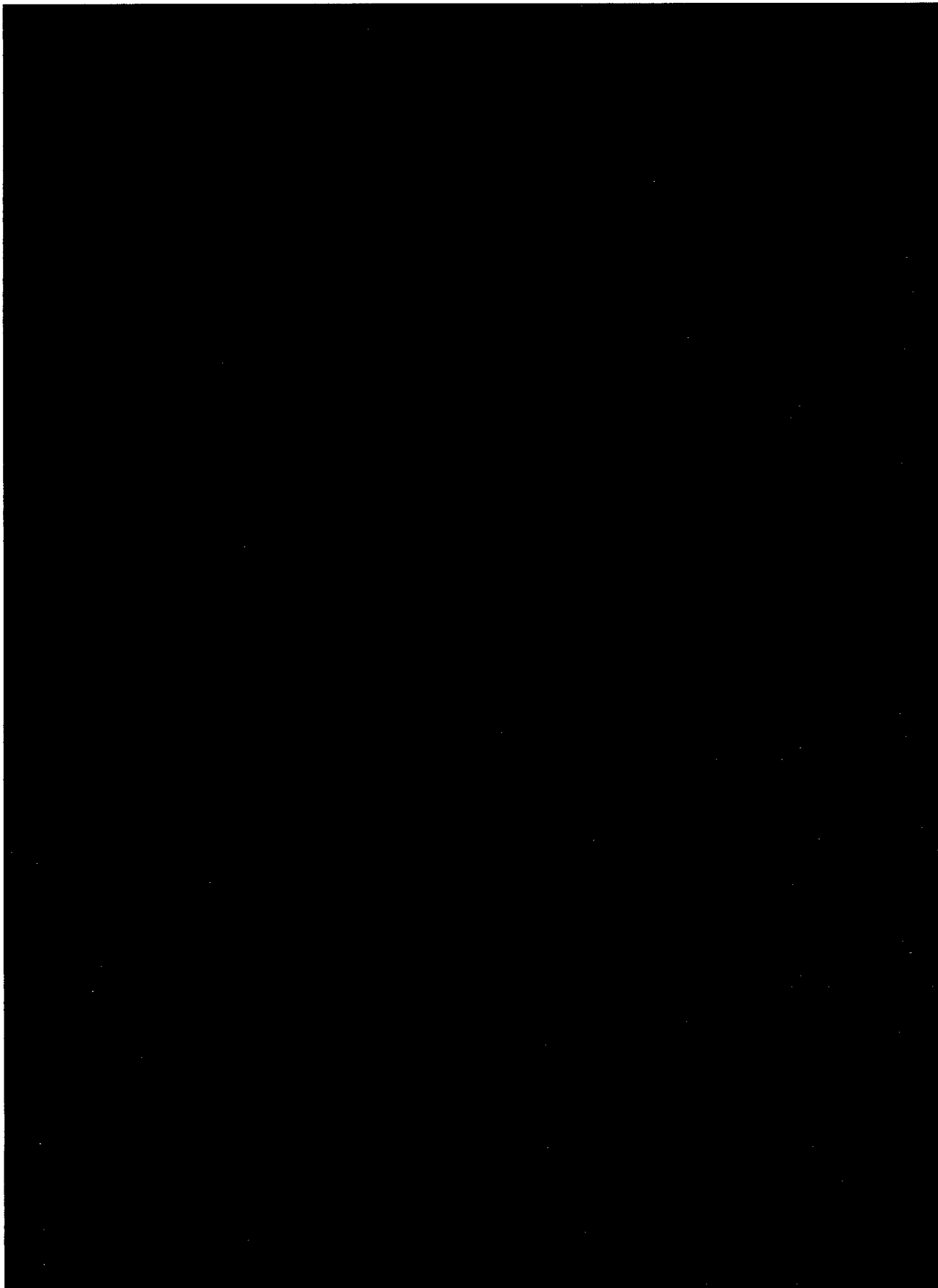
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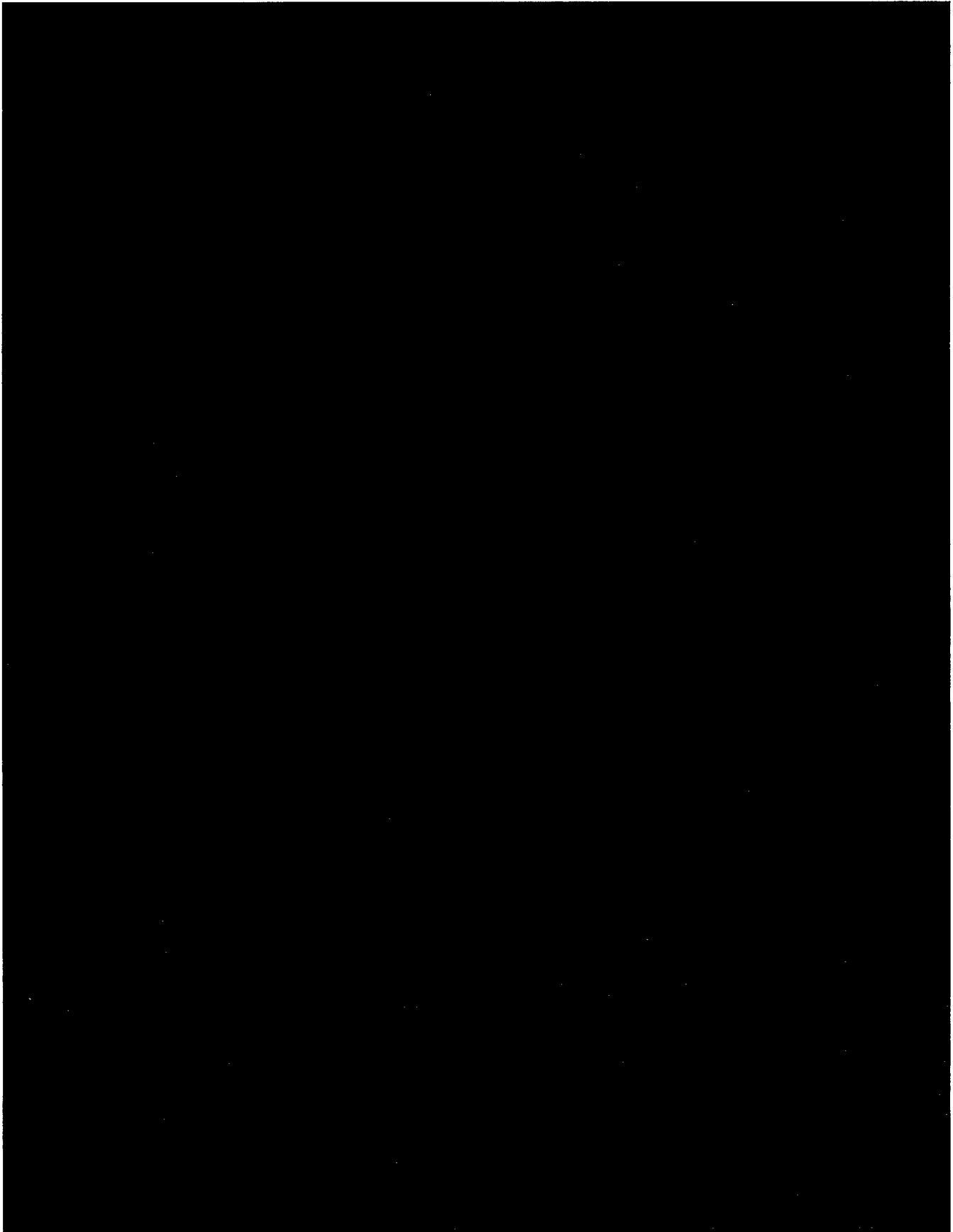
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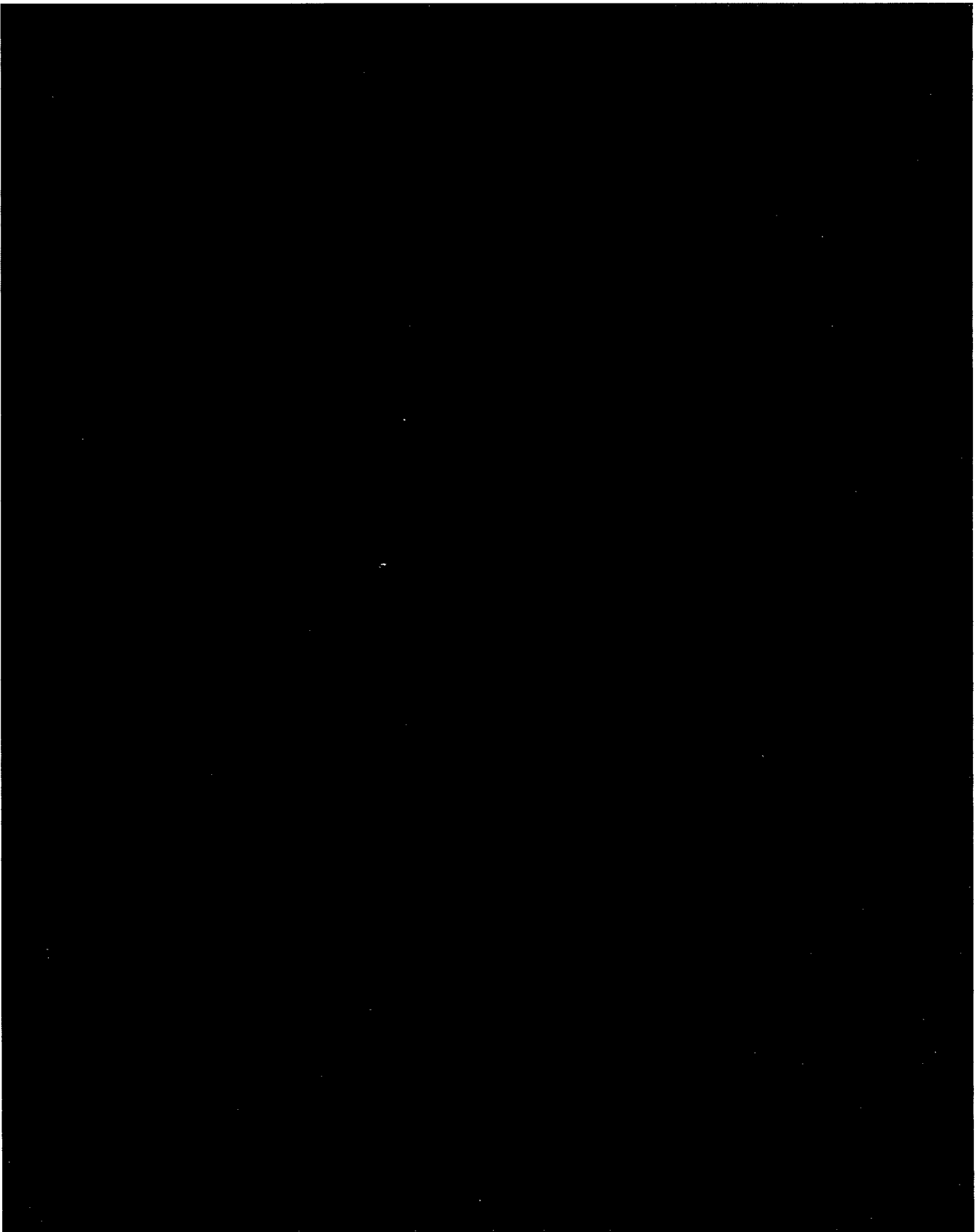


Appendix G: Select WGN Data For Distant Viewing Households Provided By Nielsen To MLB





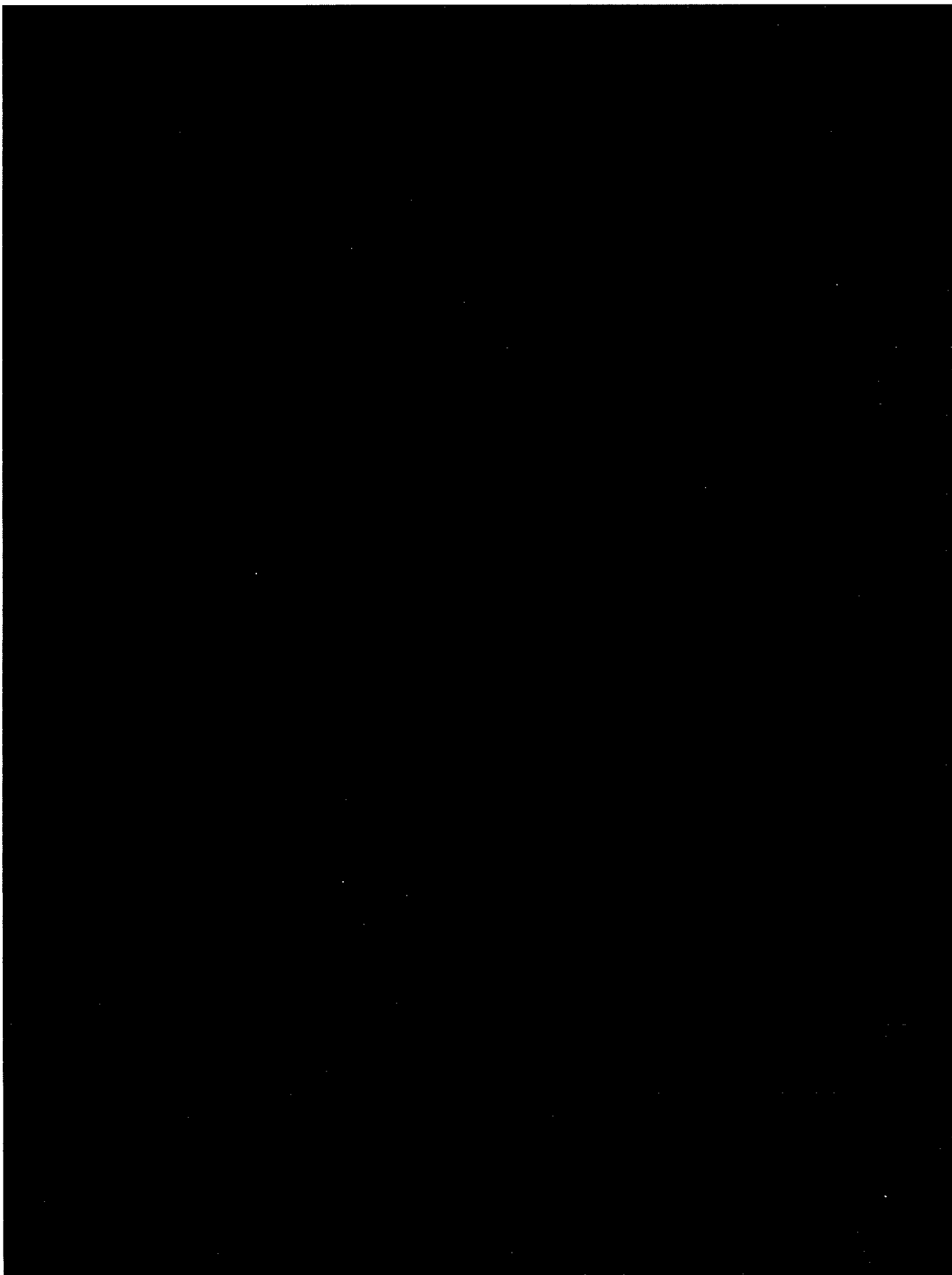
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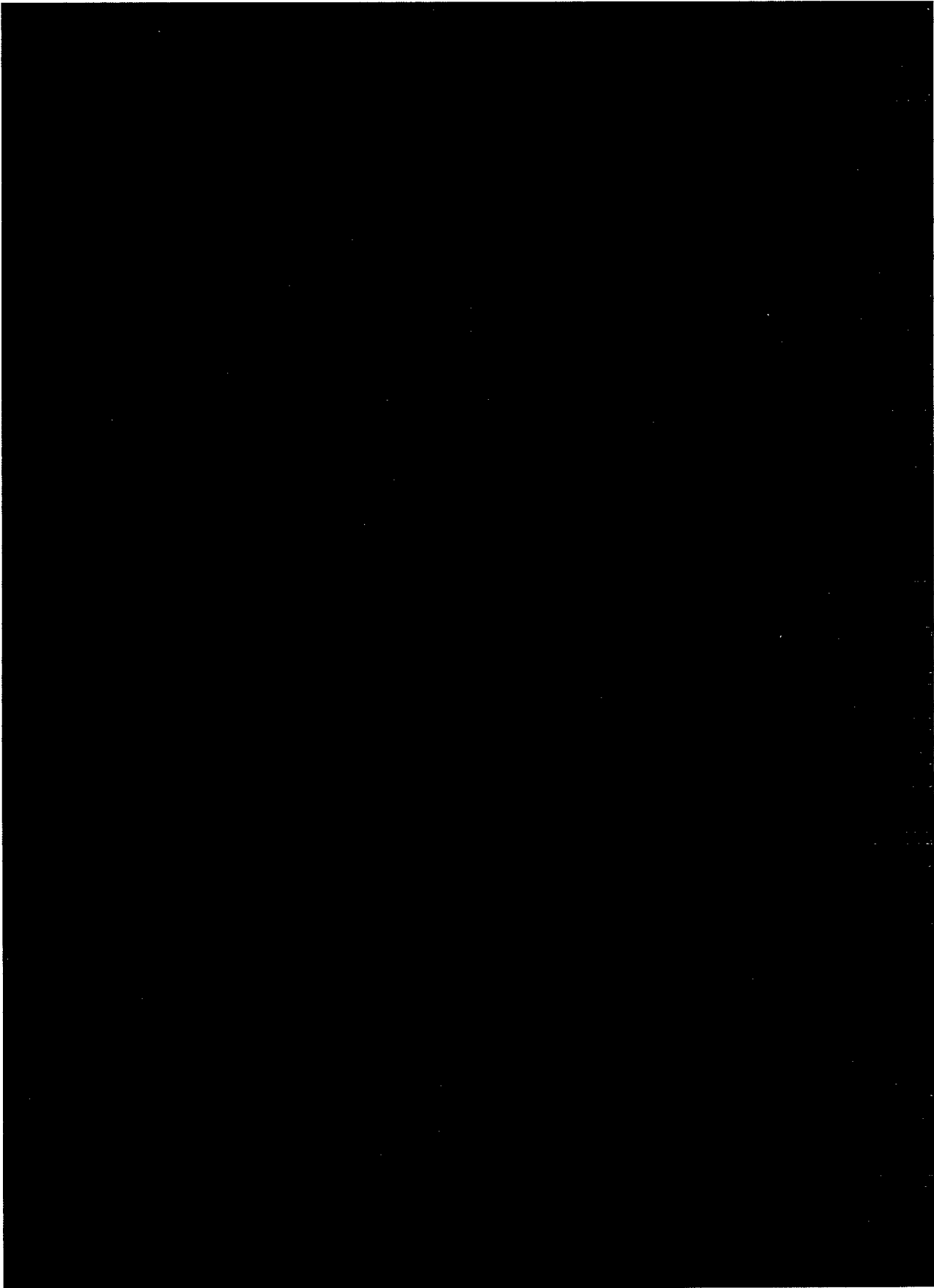
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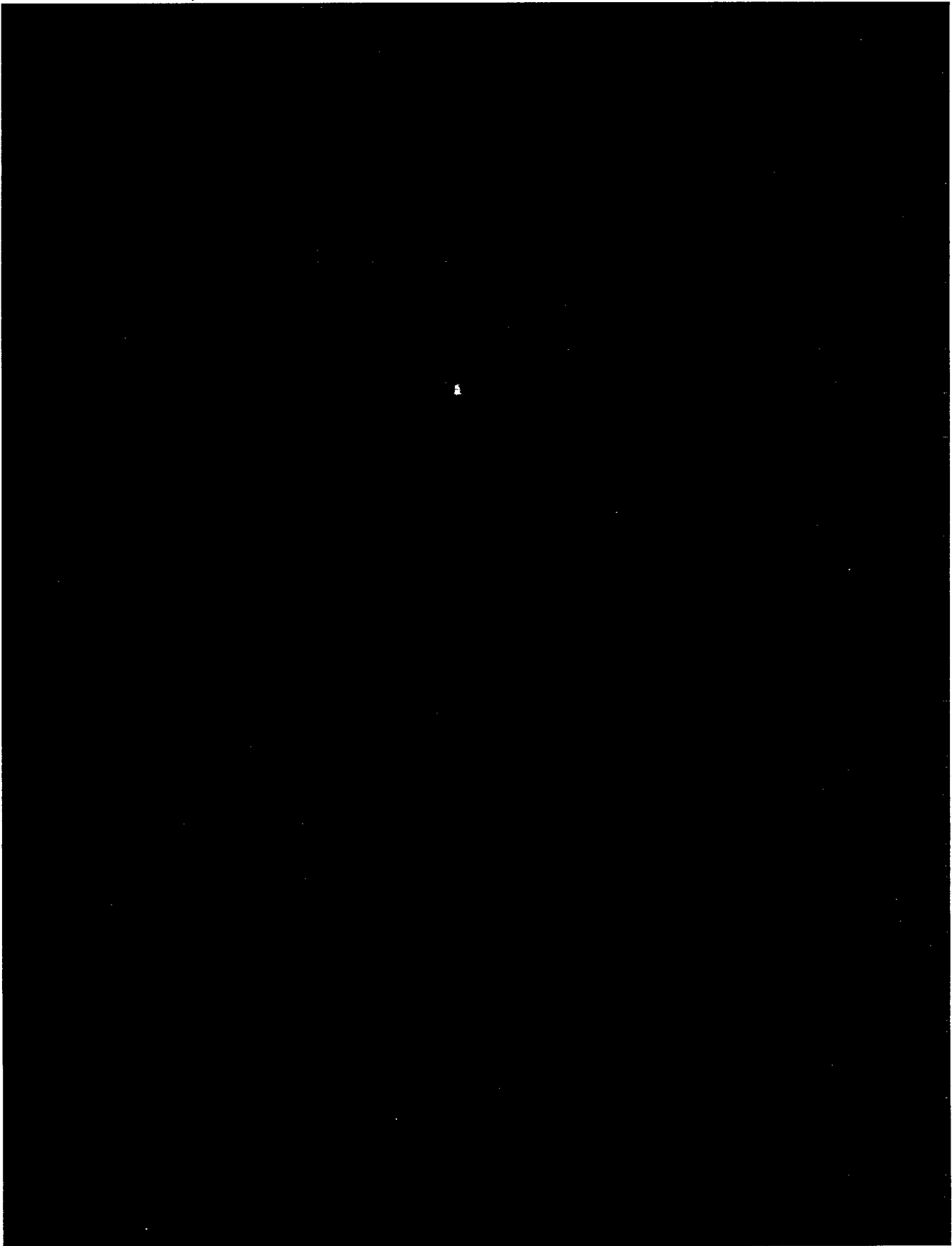
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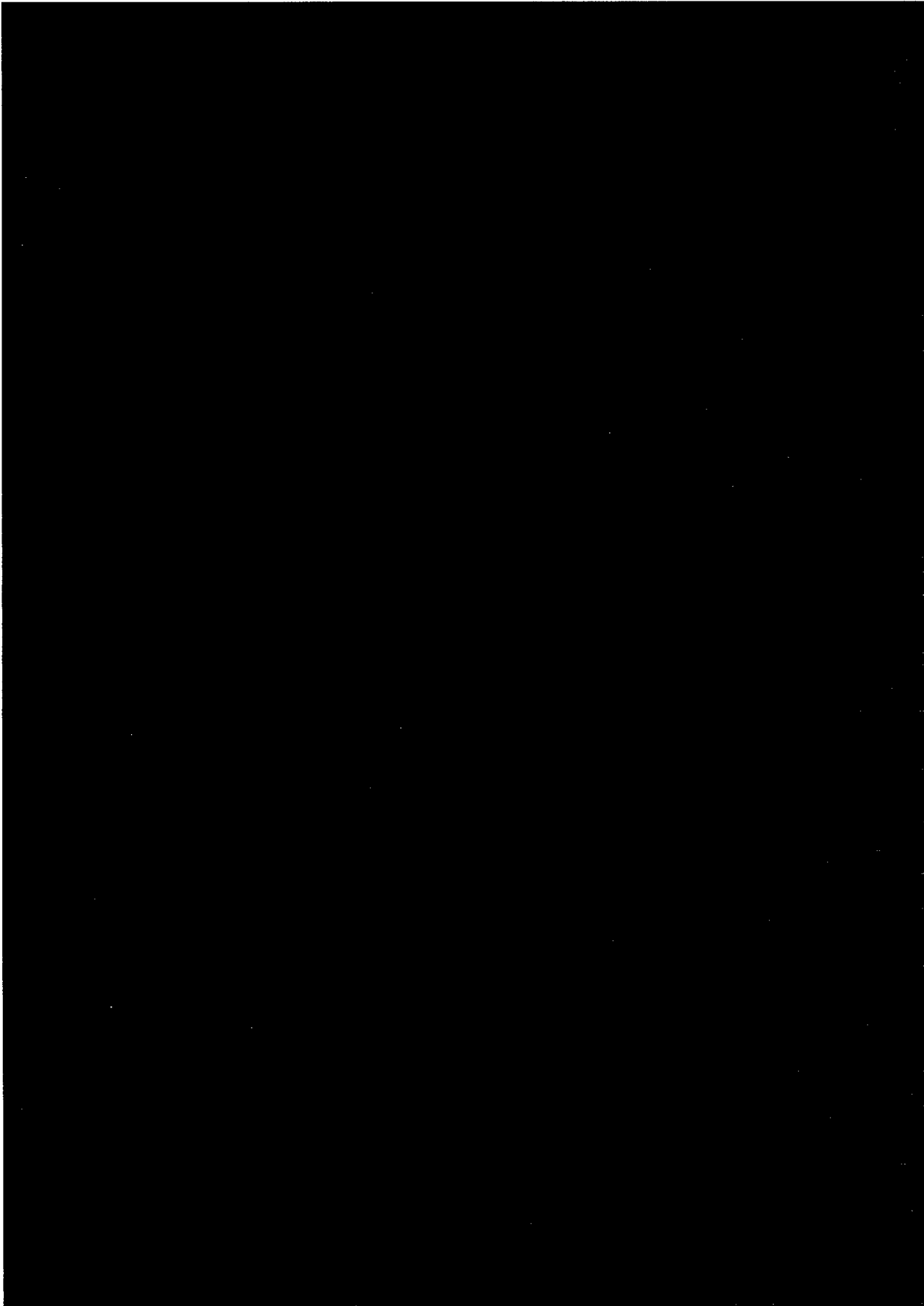
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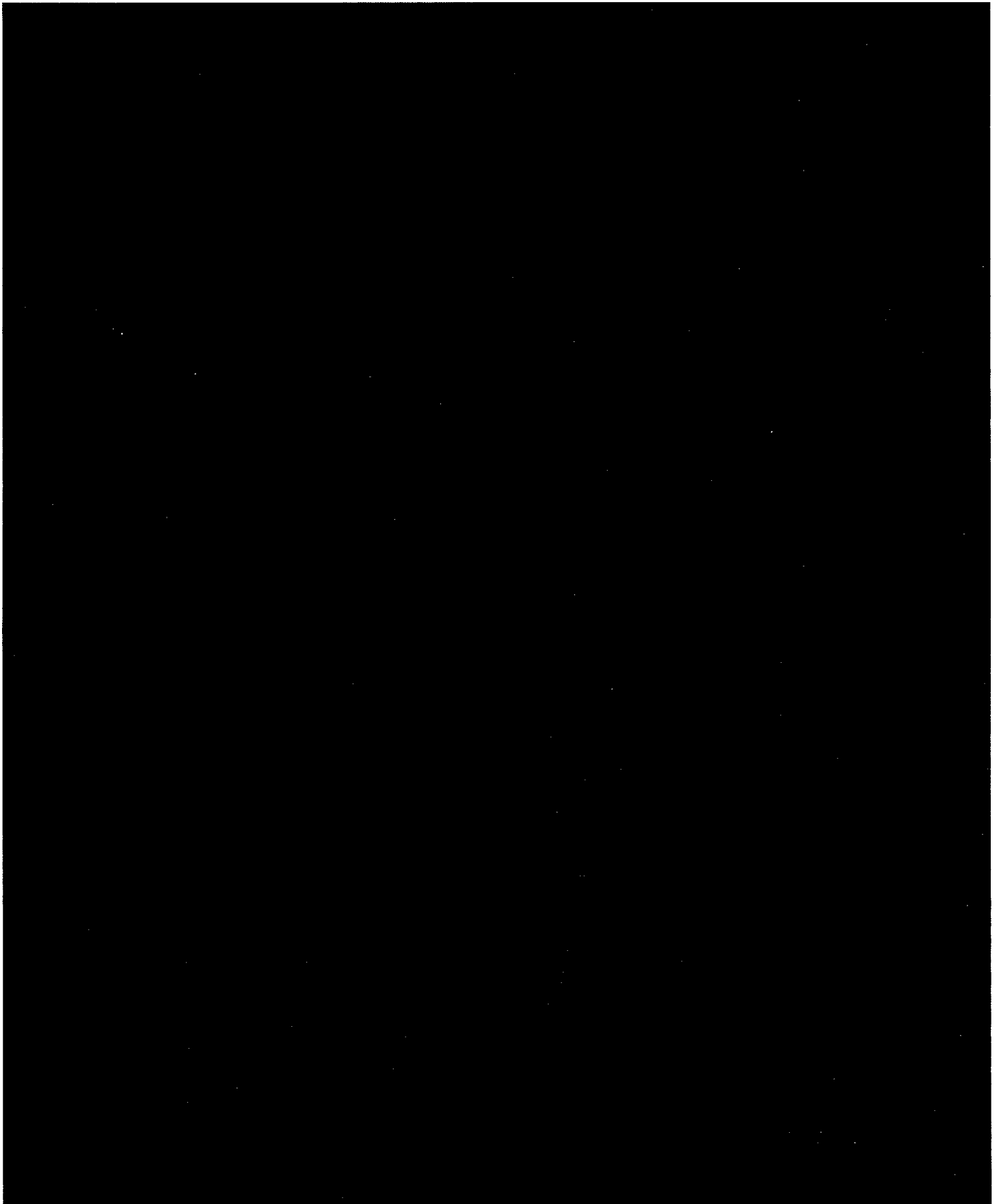
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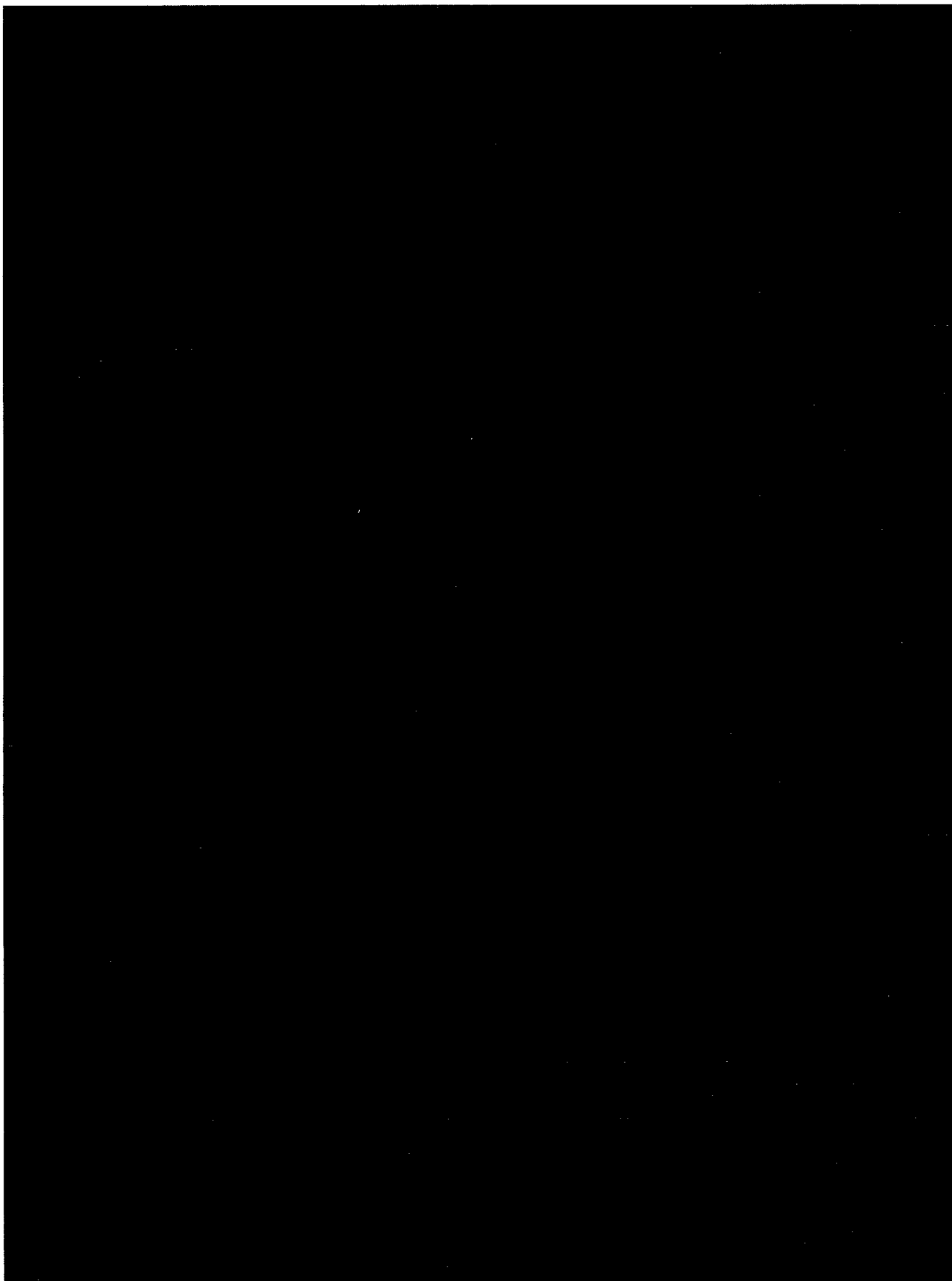
Appendix G: Select WGN Data For Distant Viewing Households Provided By Nielsen To MLB



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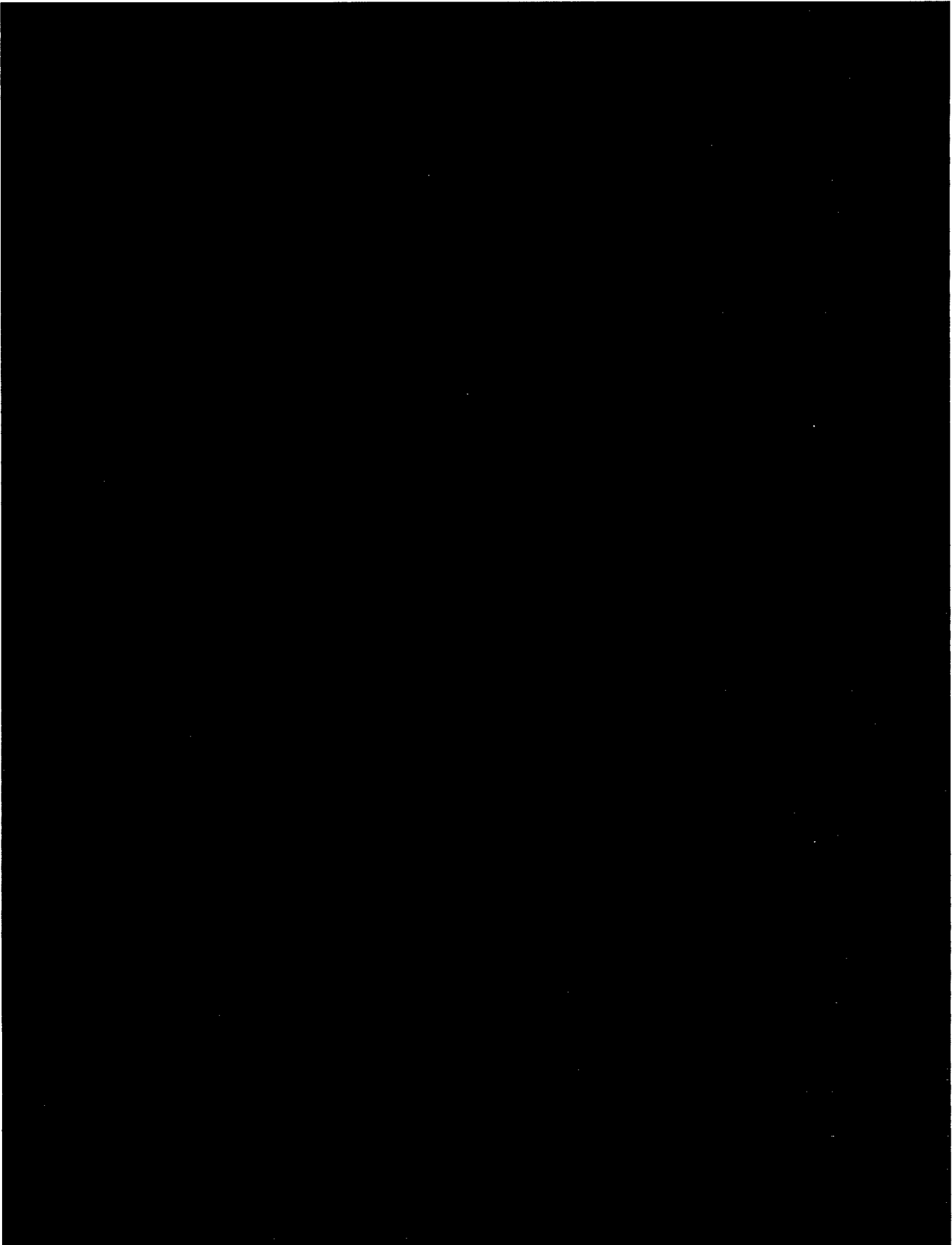


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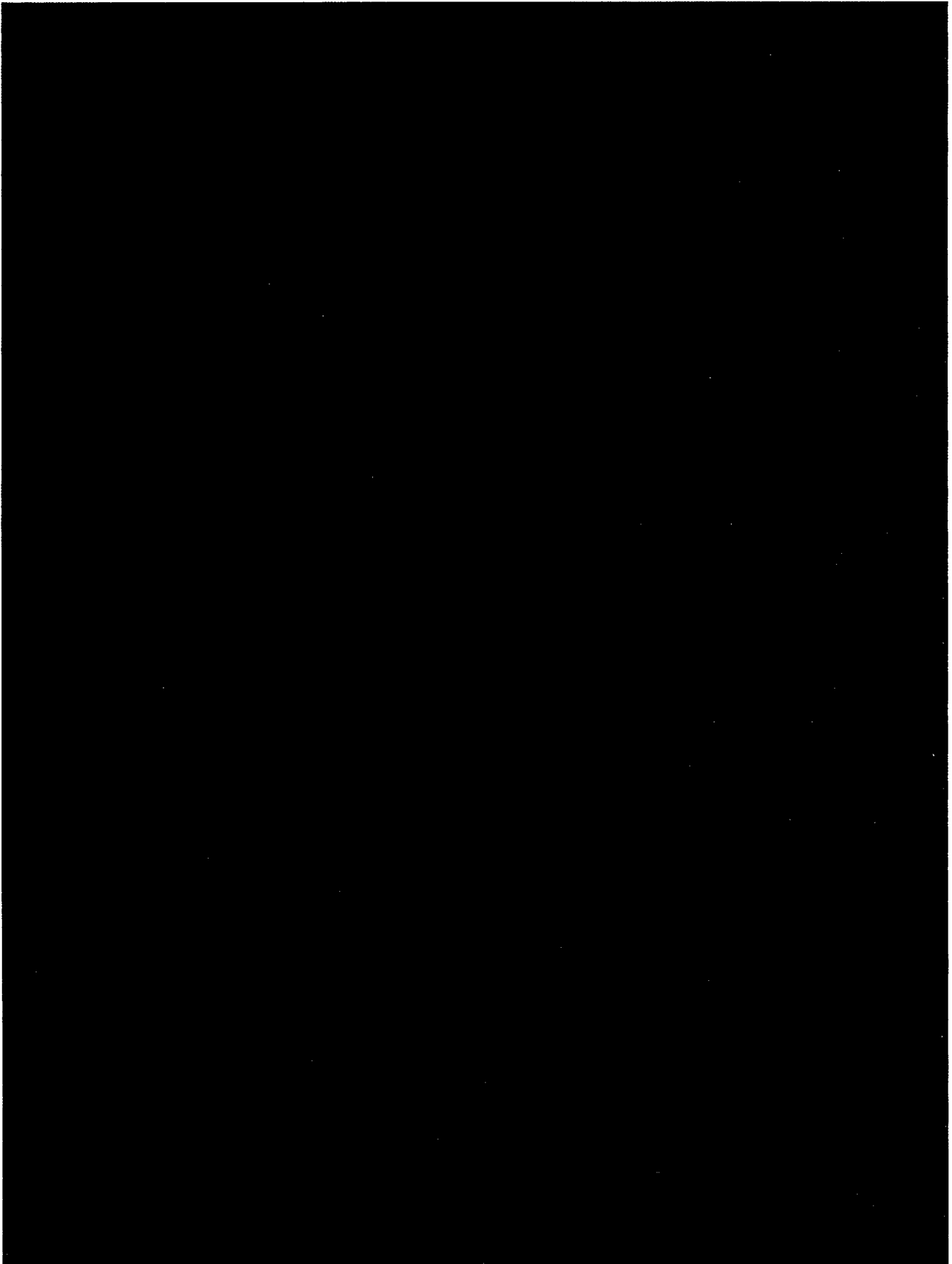




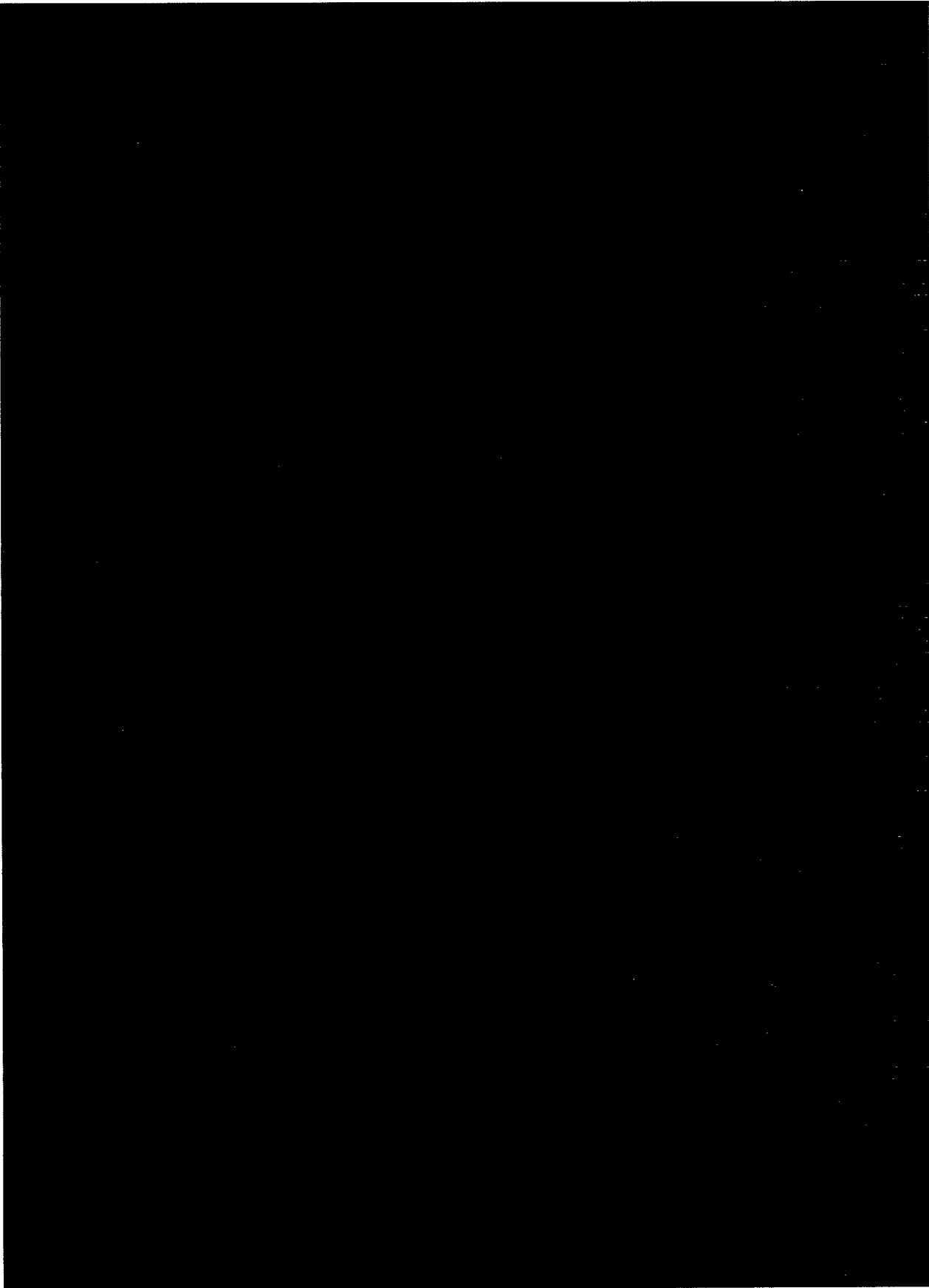
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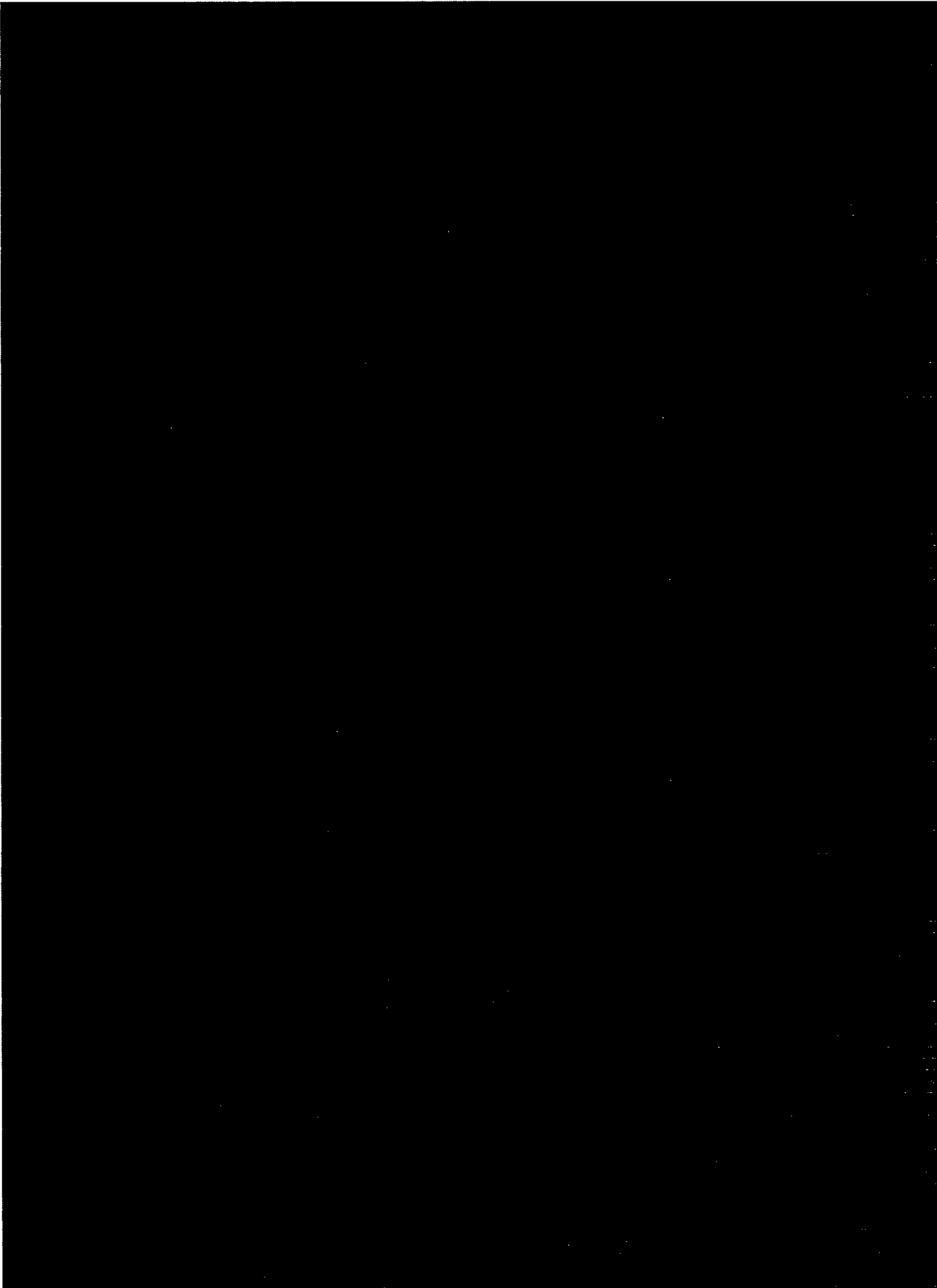
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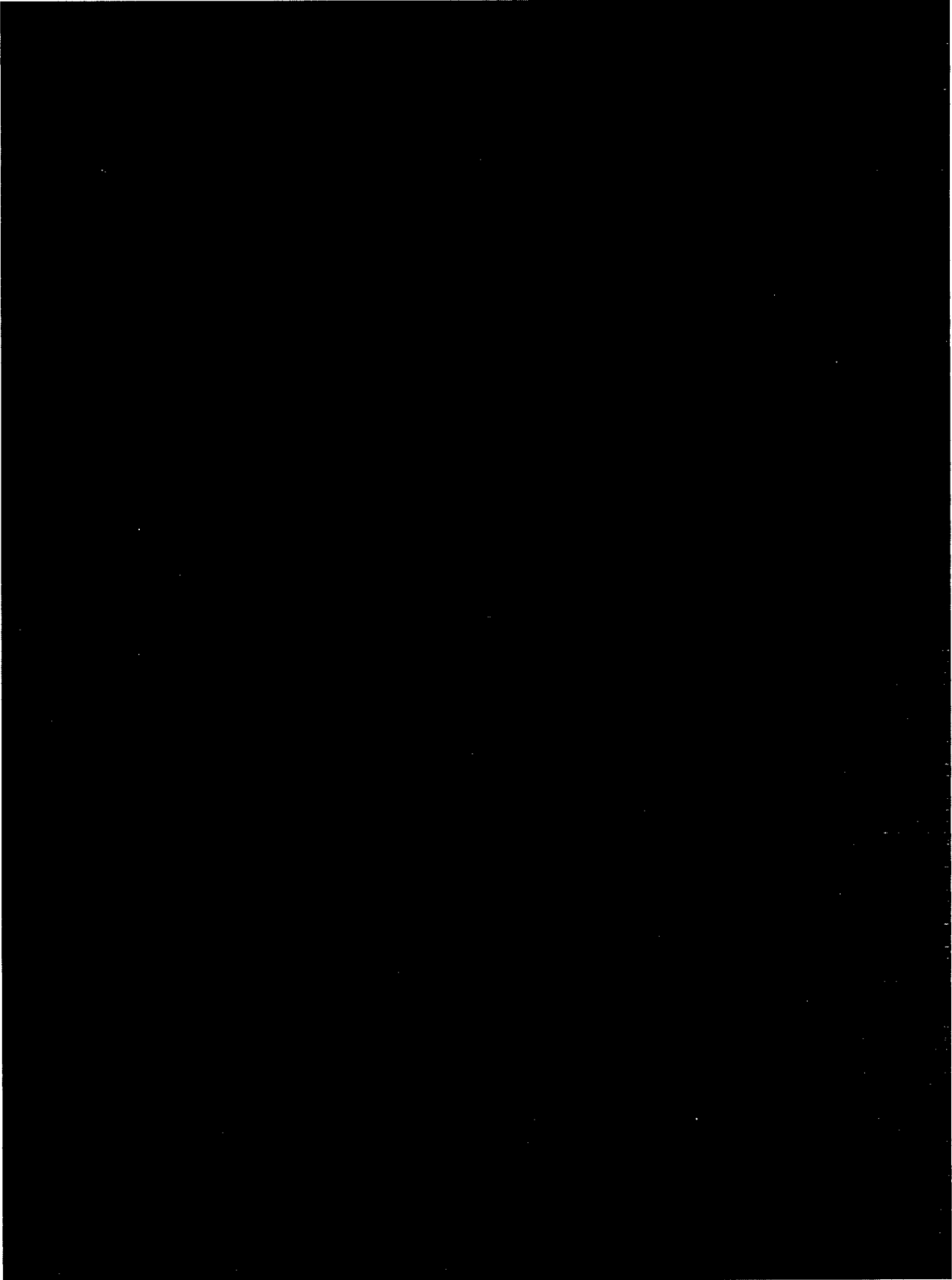
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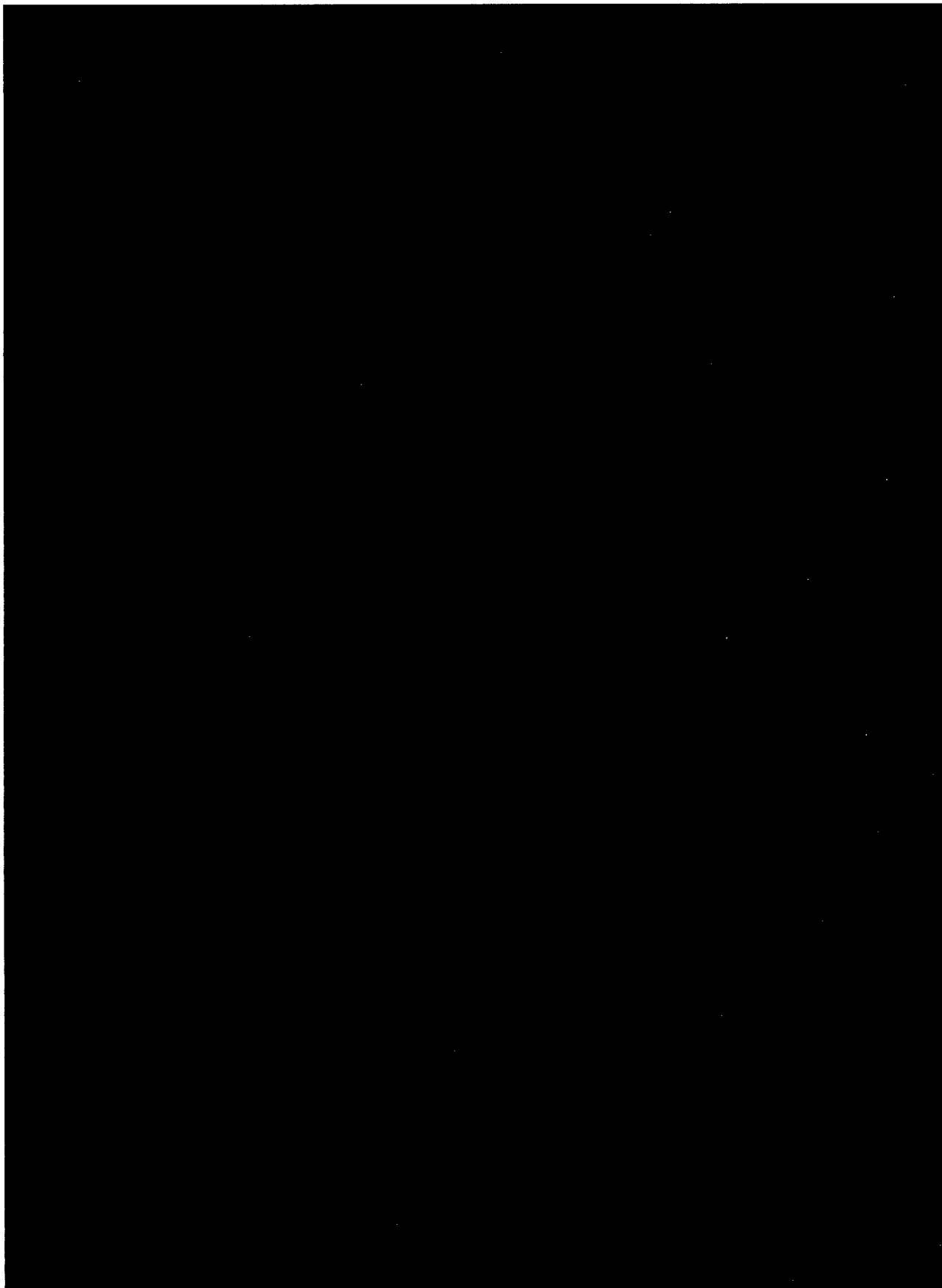
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Appendix G: Select WGN Data For Distant Viewing Households Provided By Nielsen To MLB

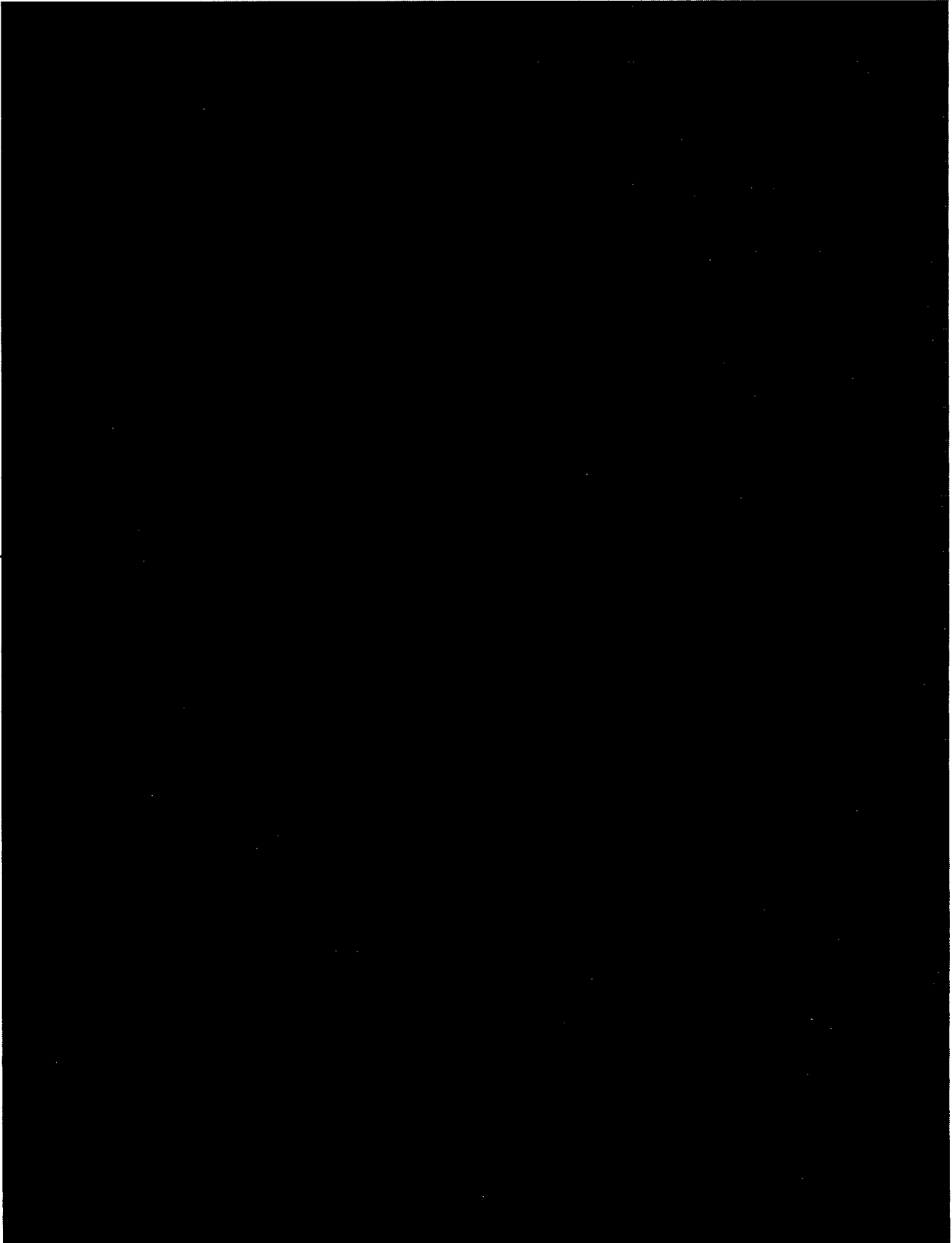


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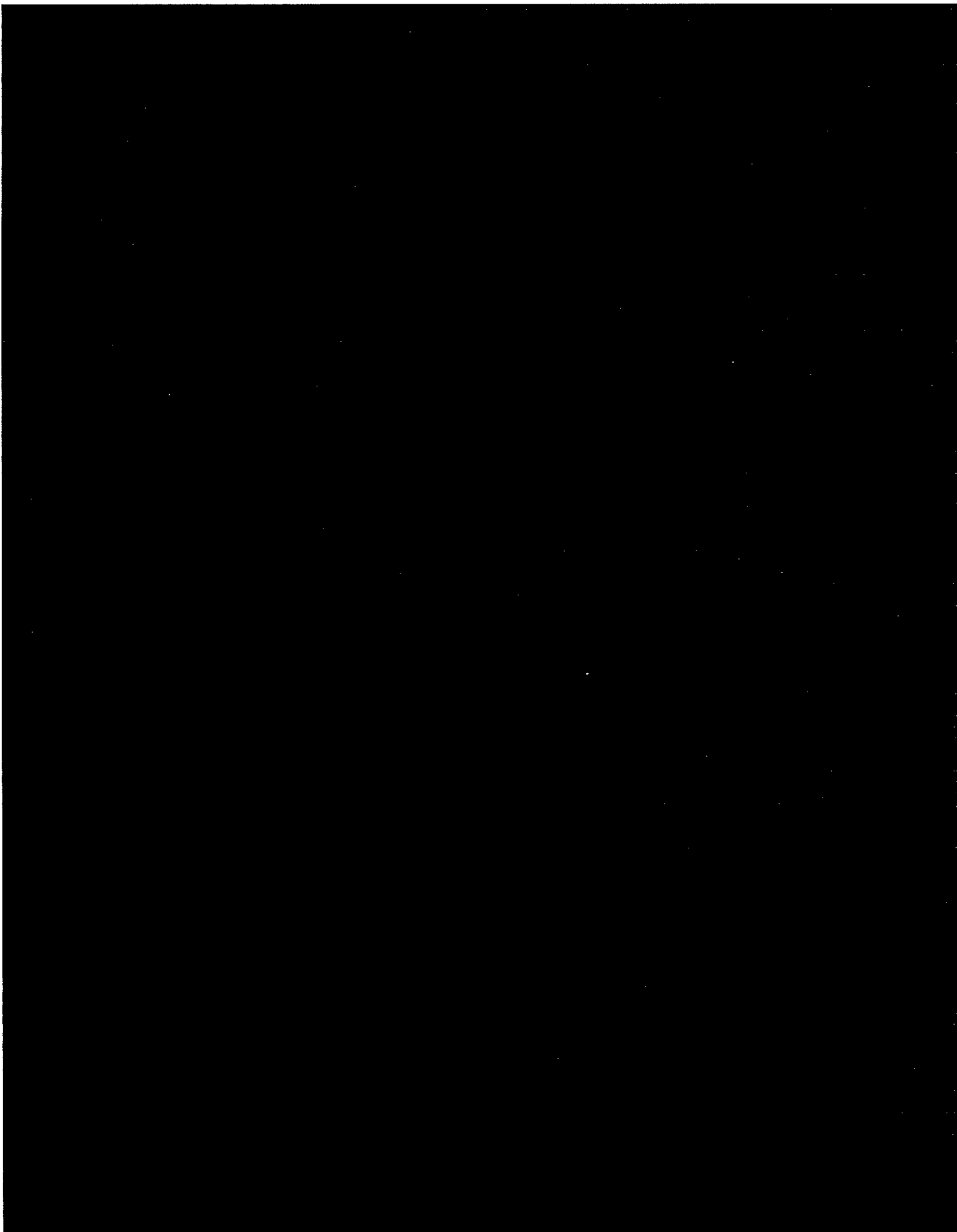




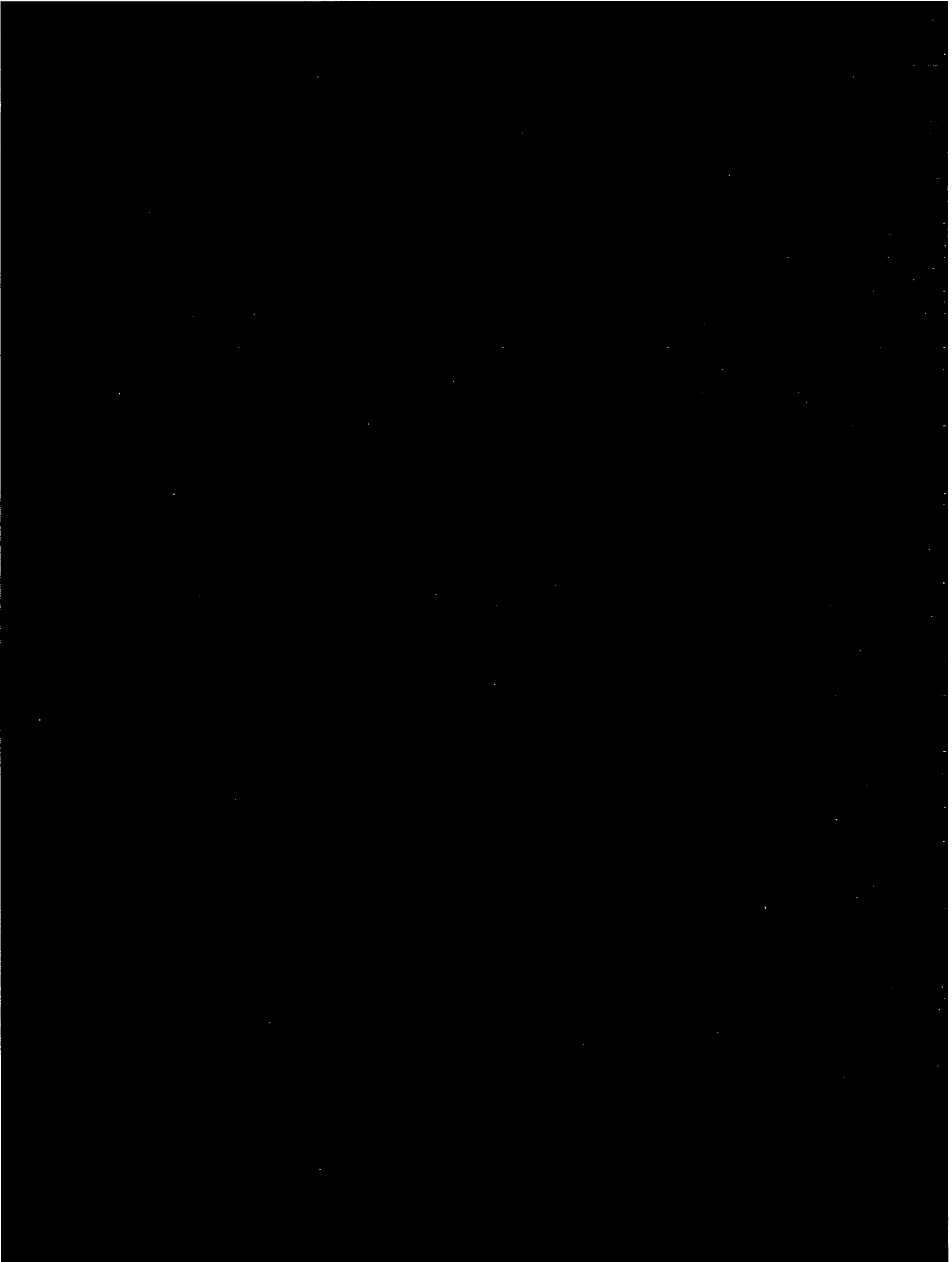
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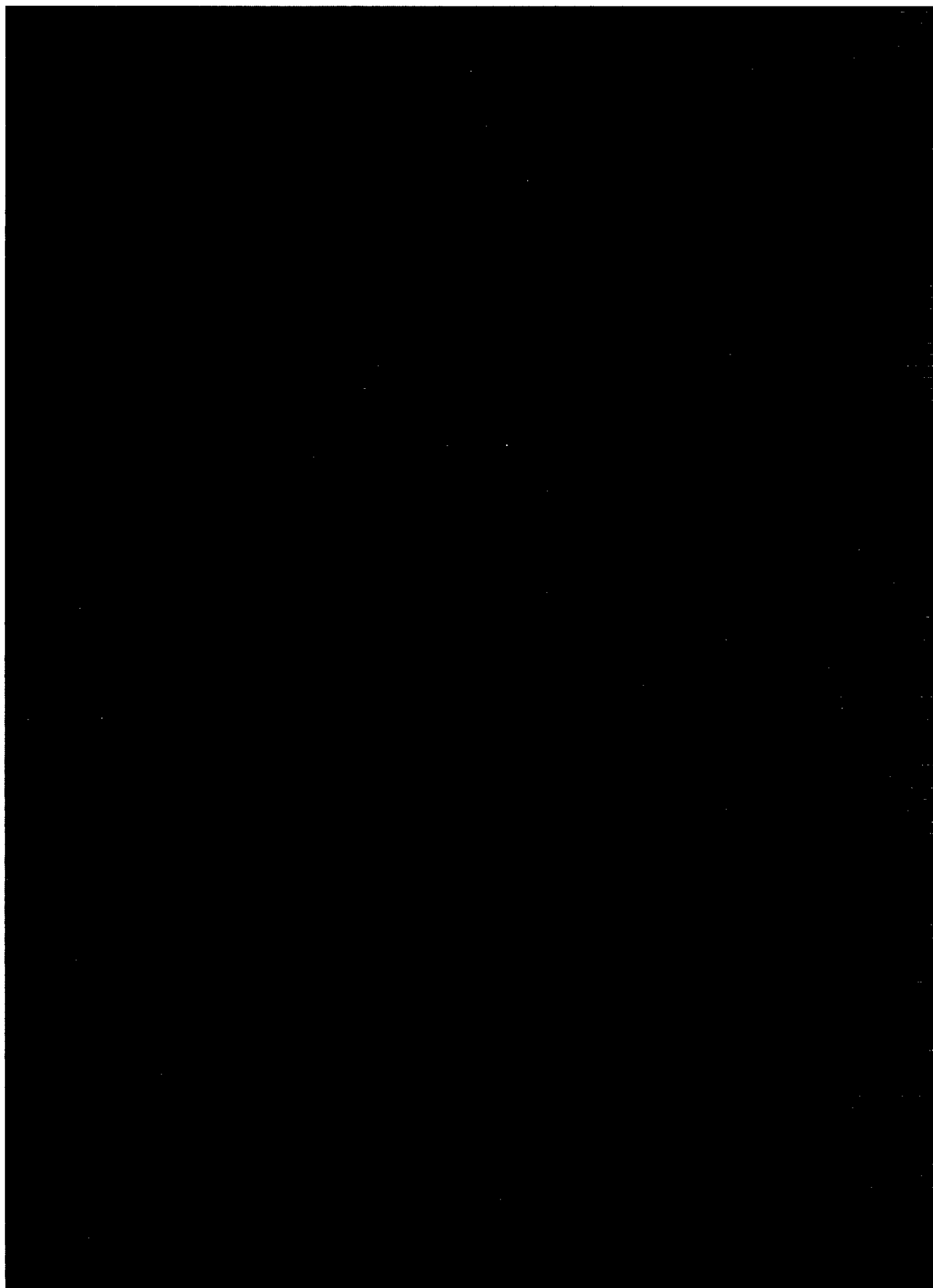
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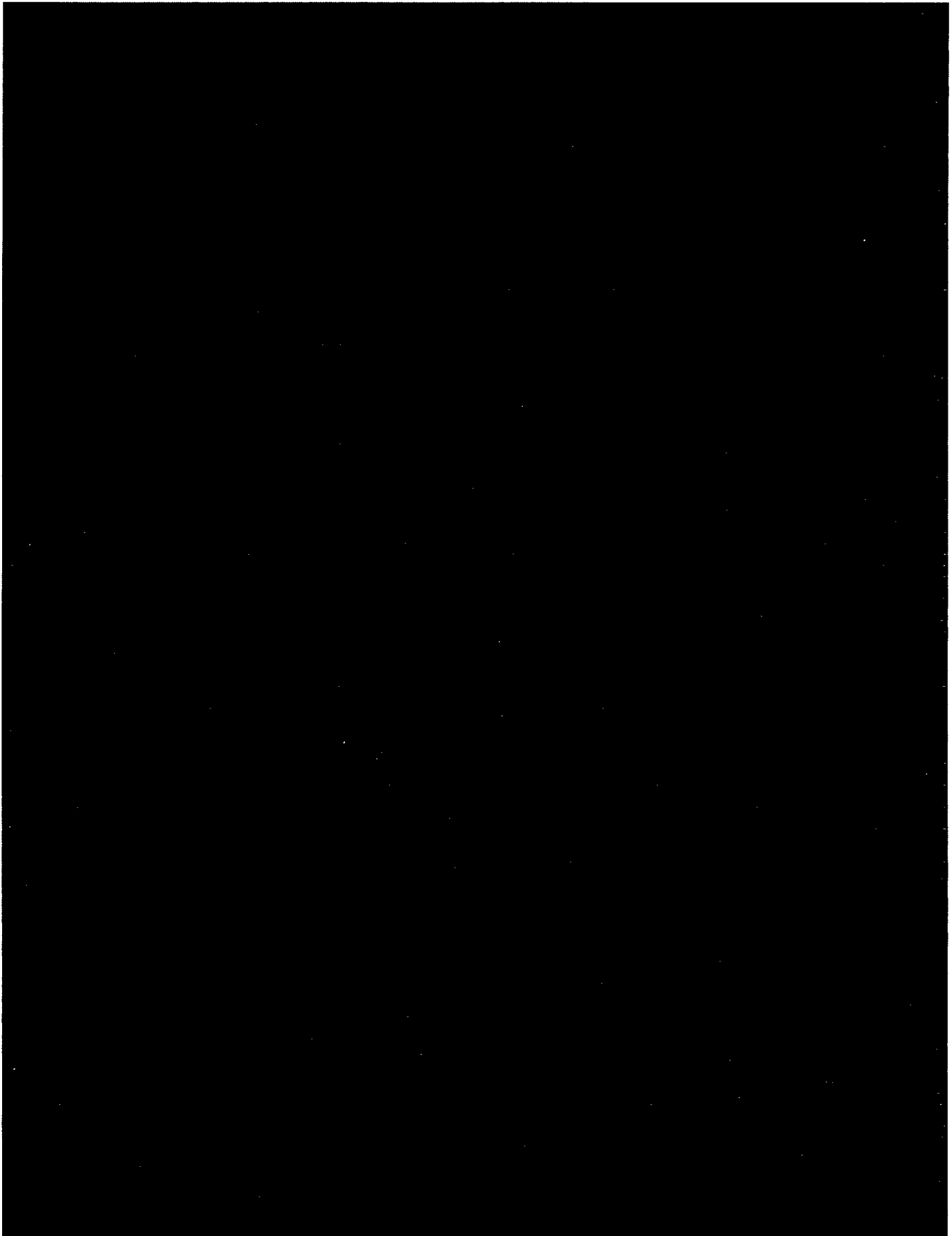
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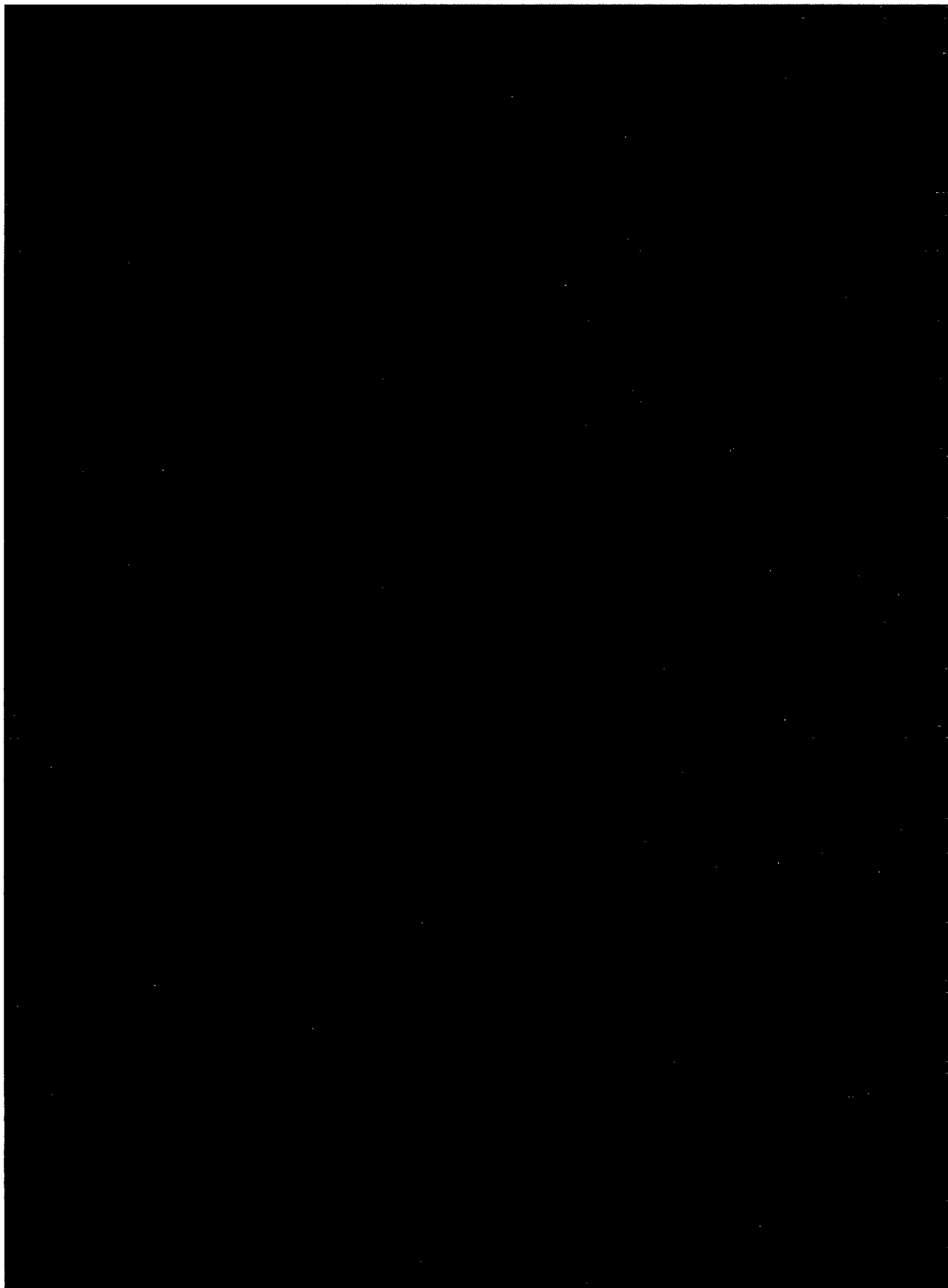
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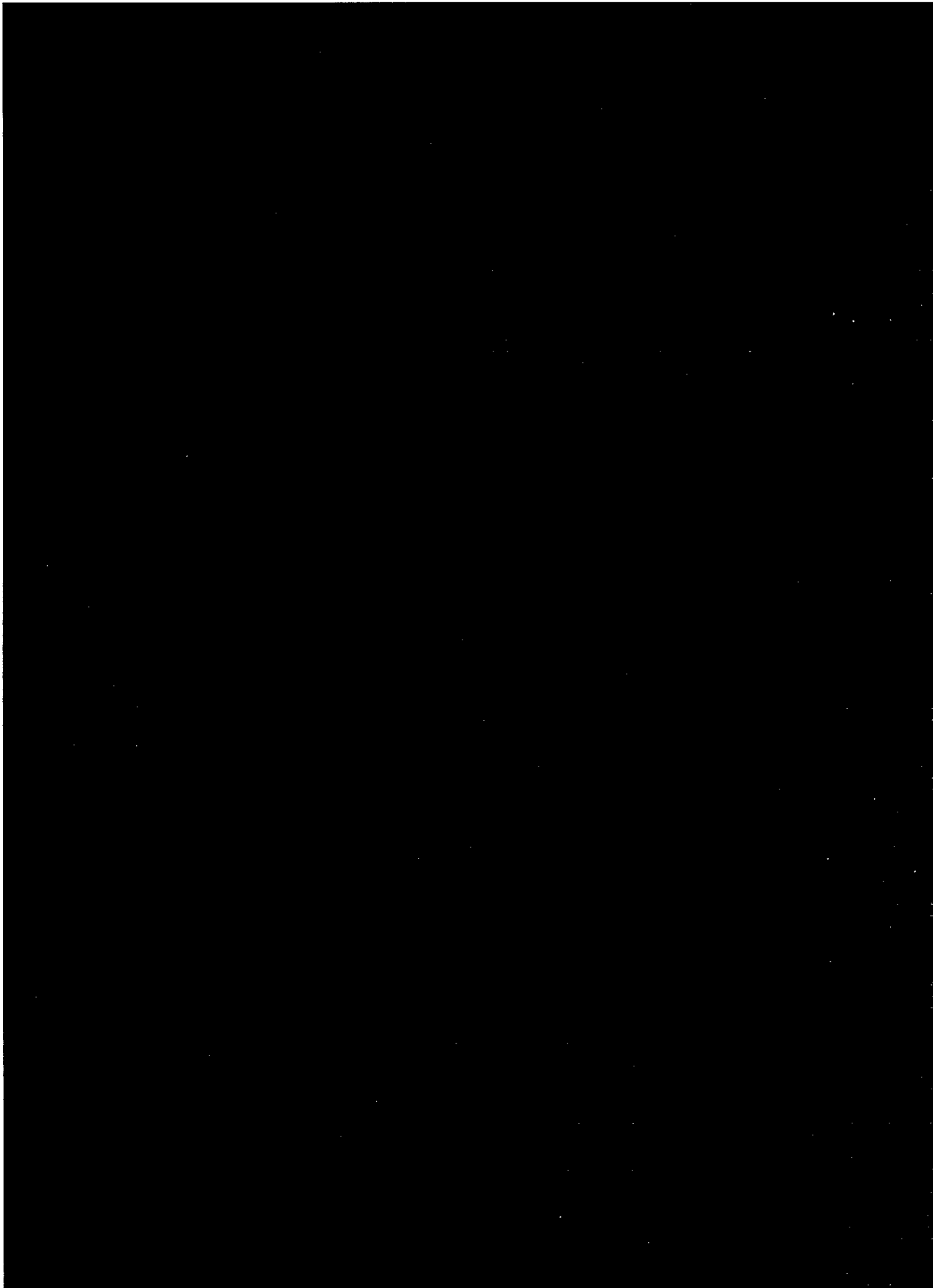
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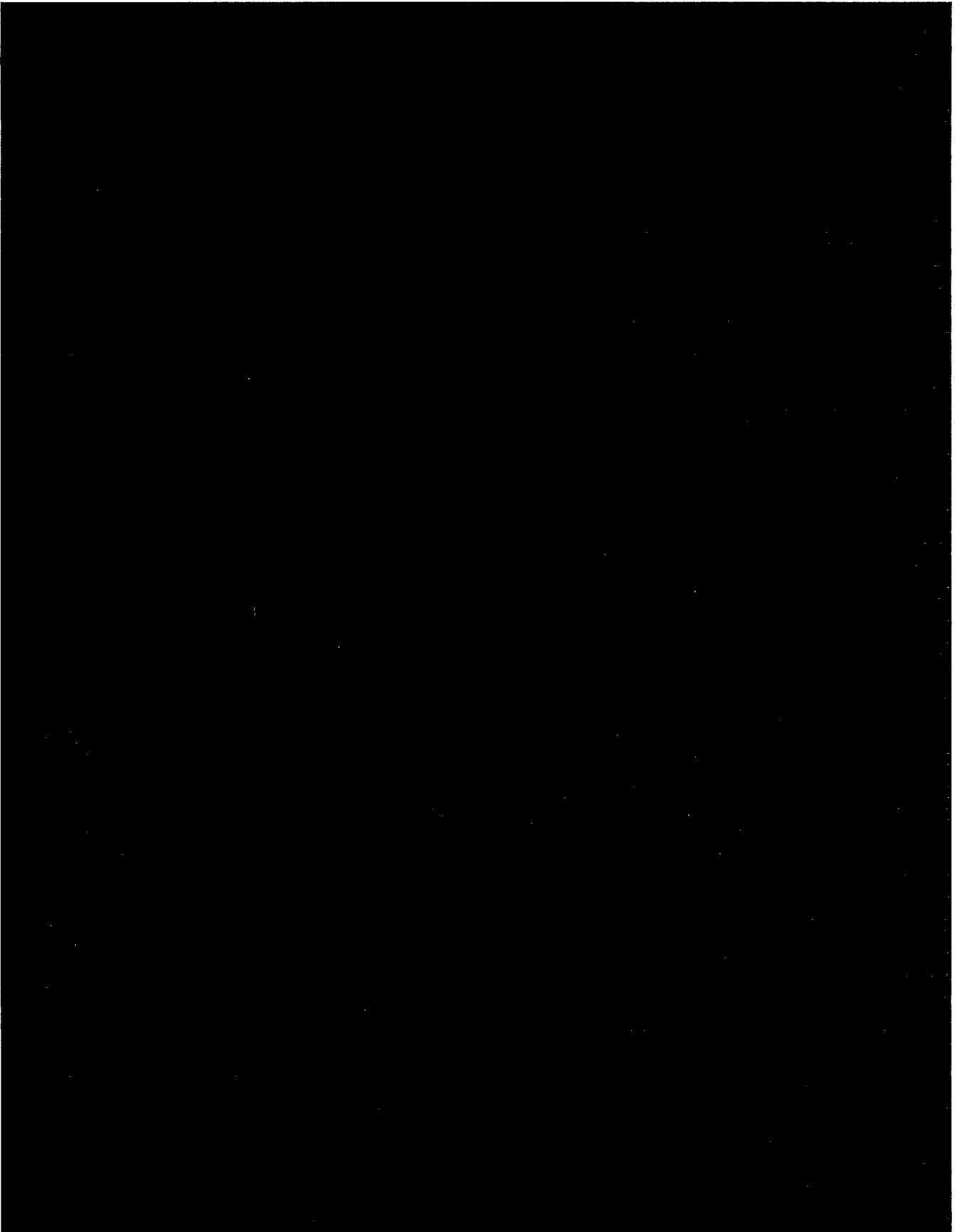
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Appendix G: Select WGN Data For Distant Viewing Households Provided By Nielsen To MLB

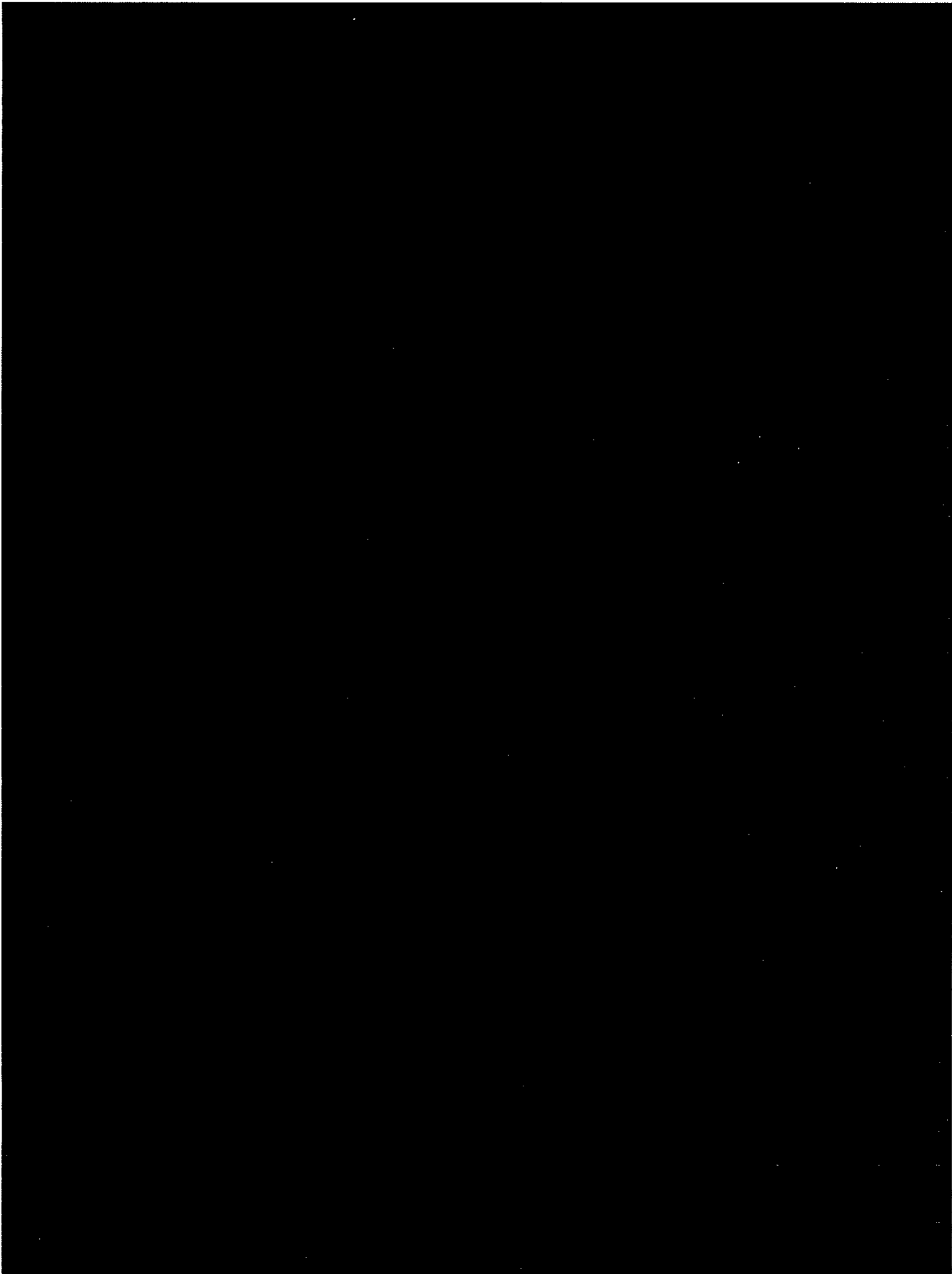


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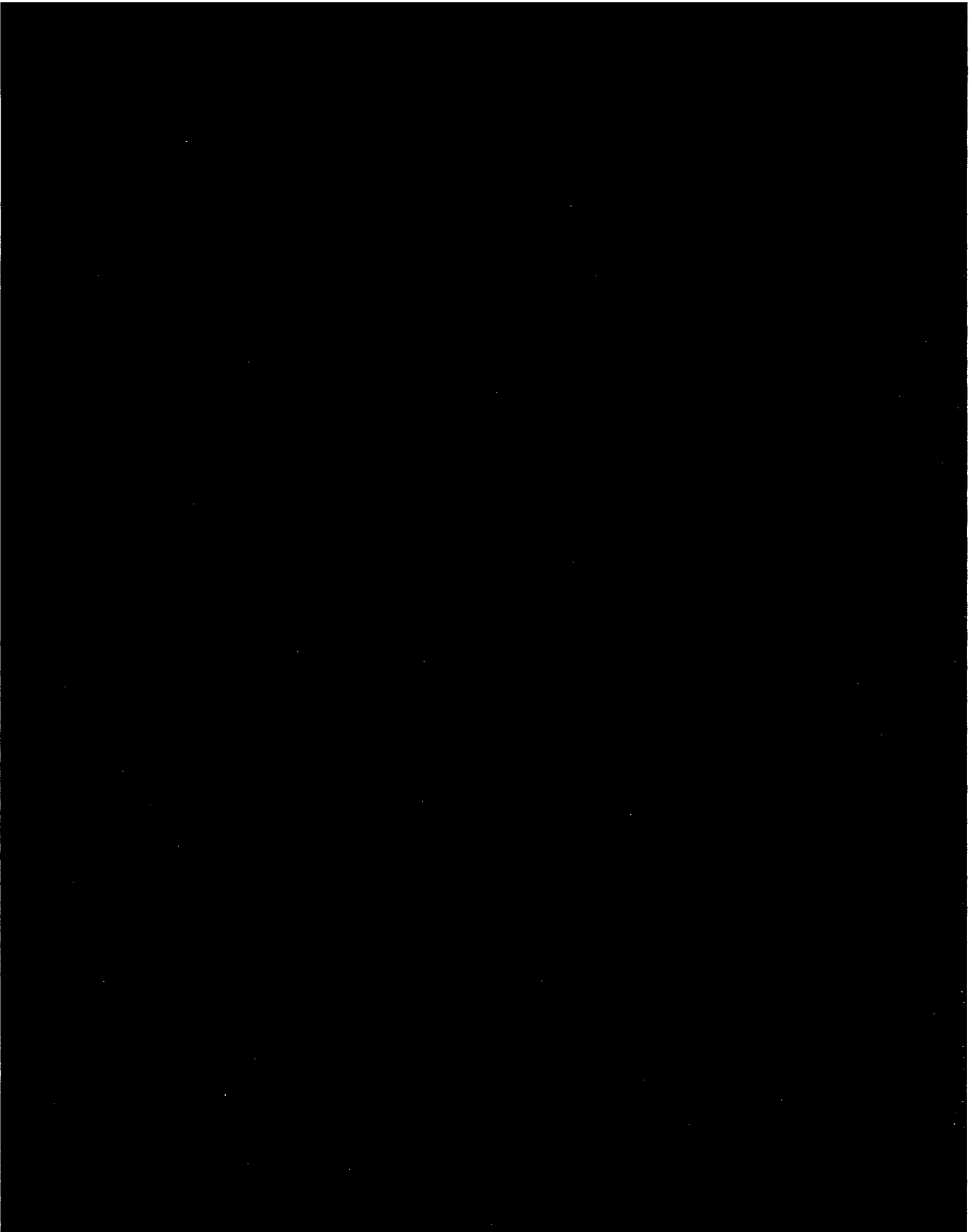




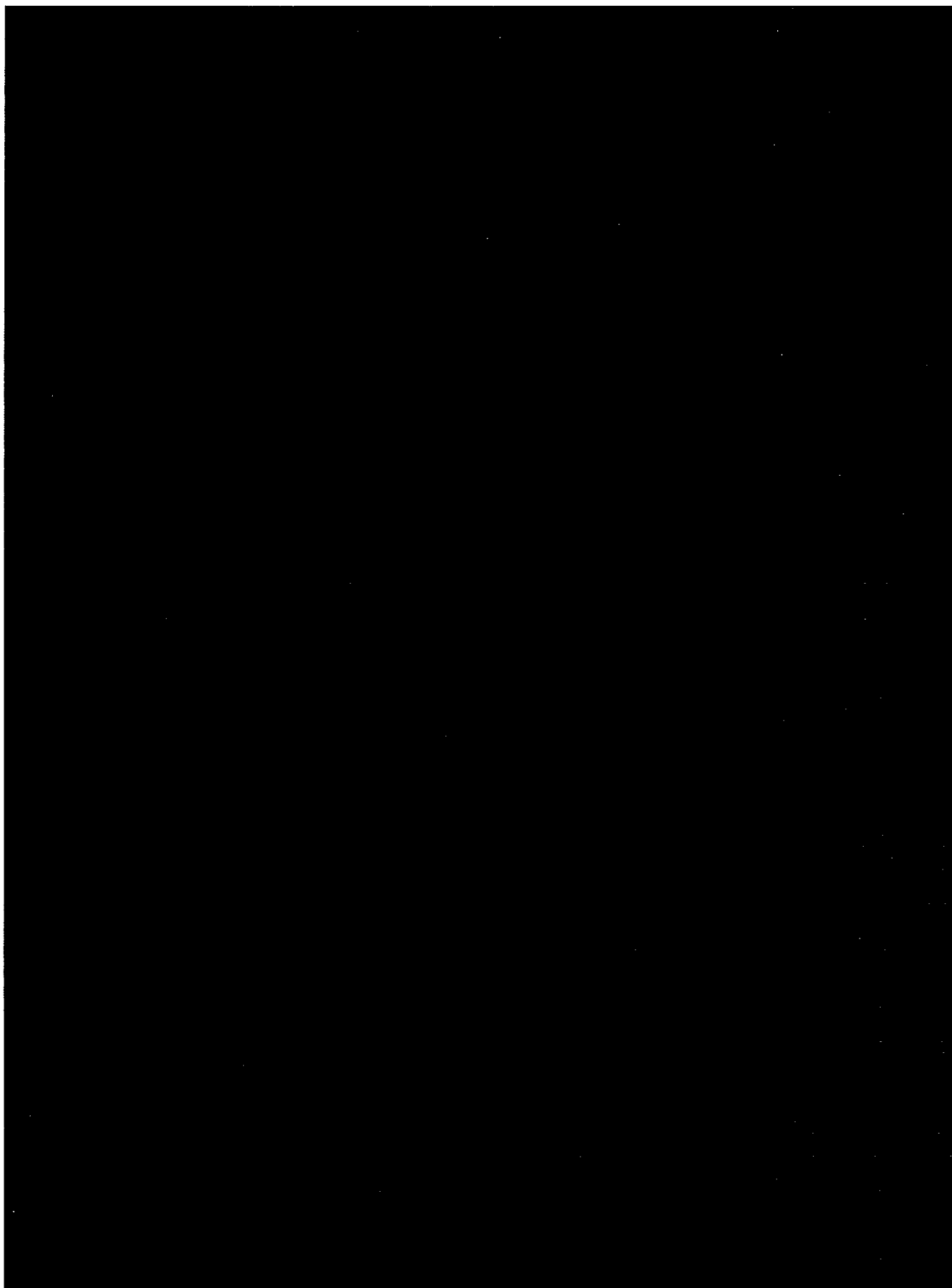
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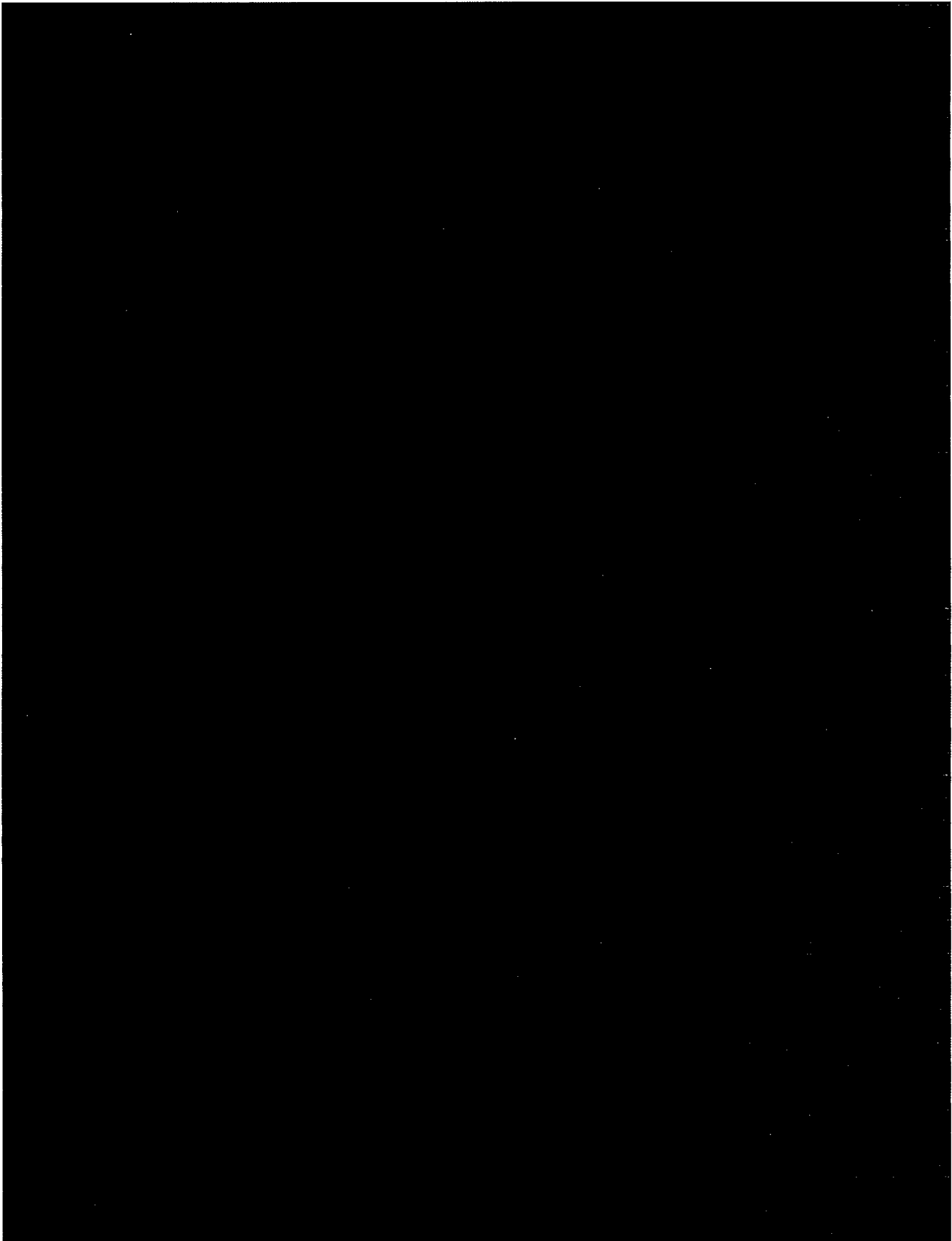
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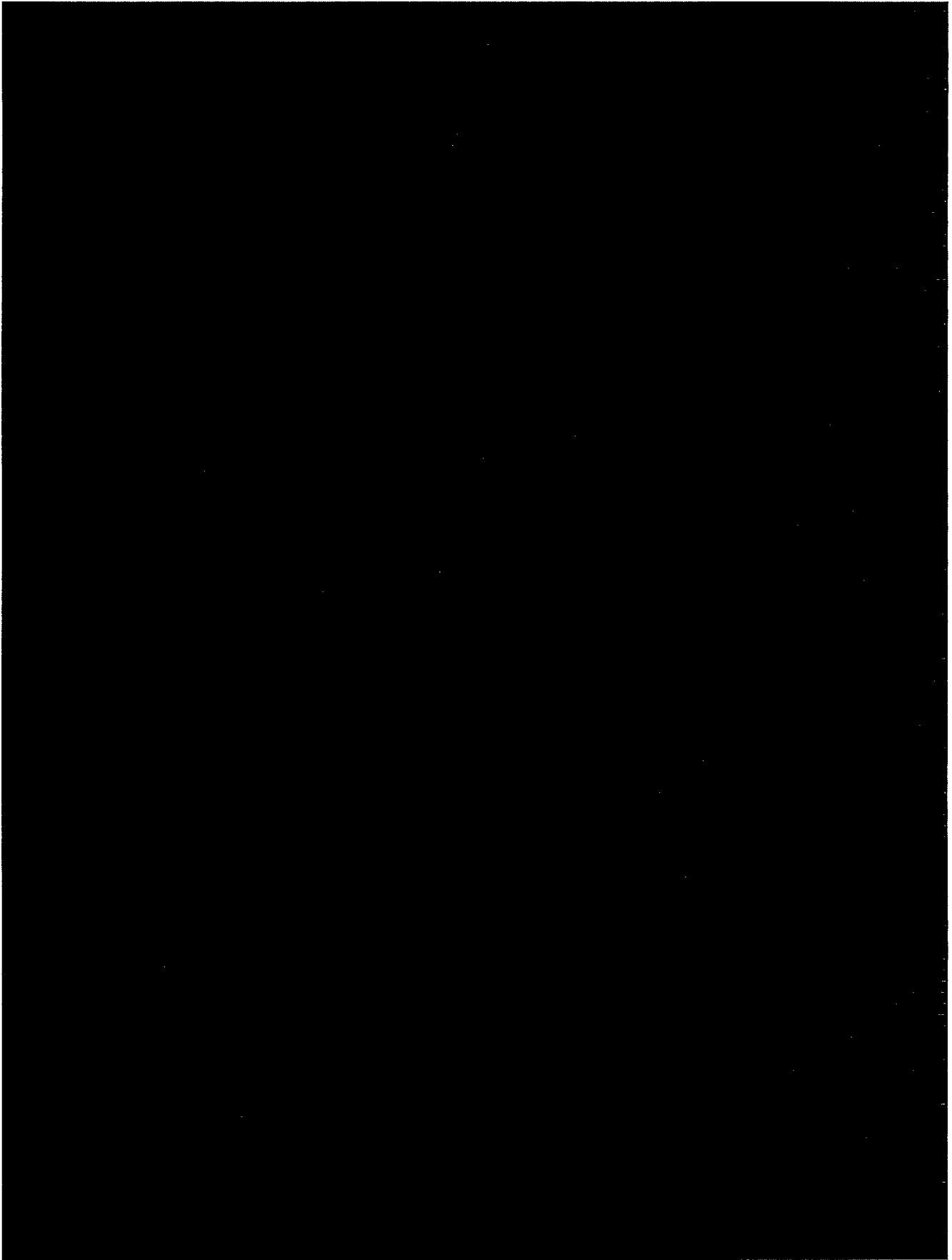
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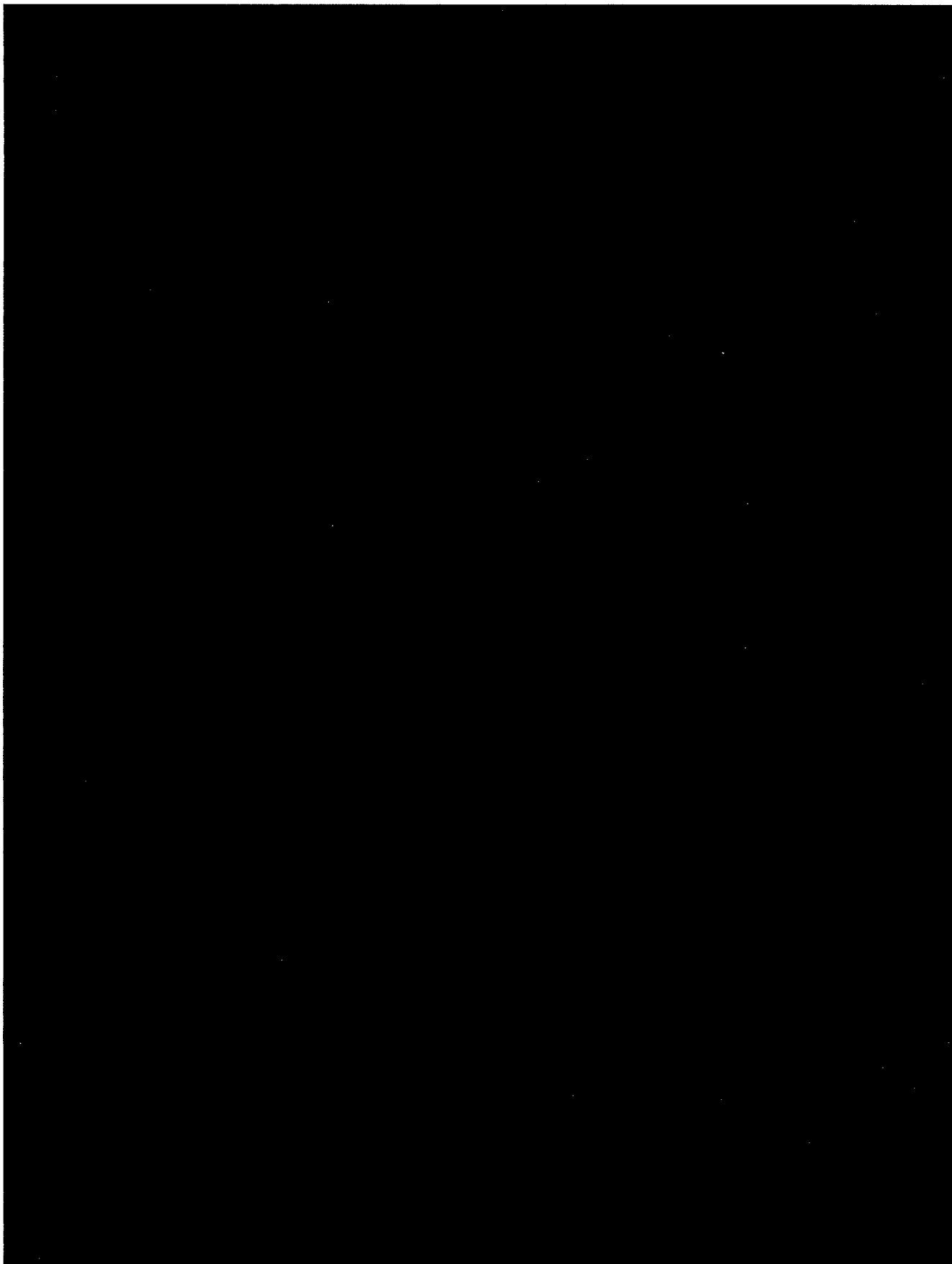
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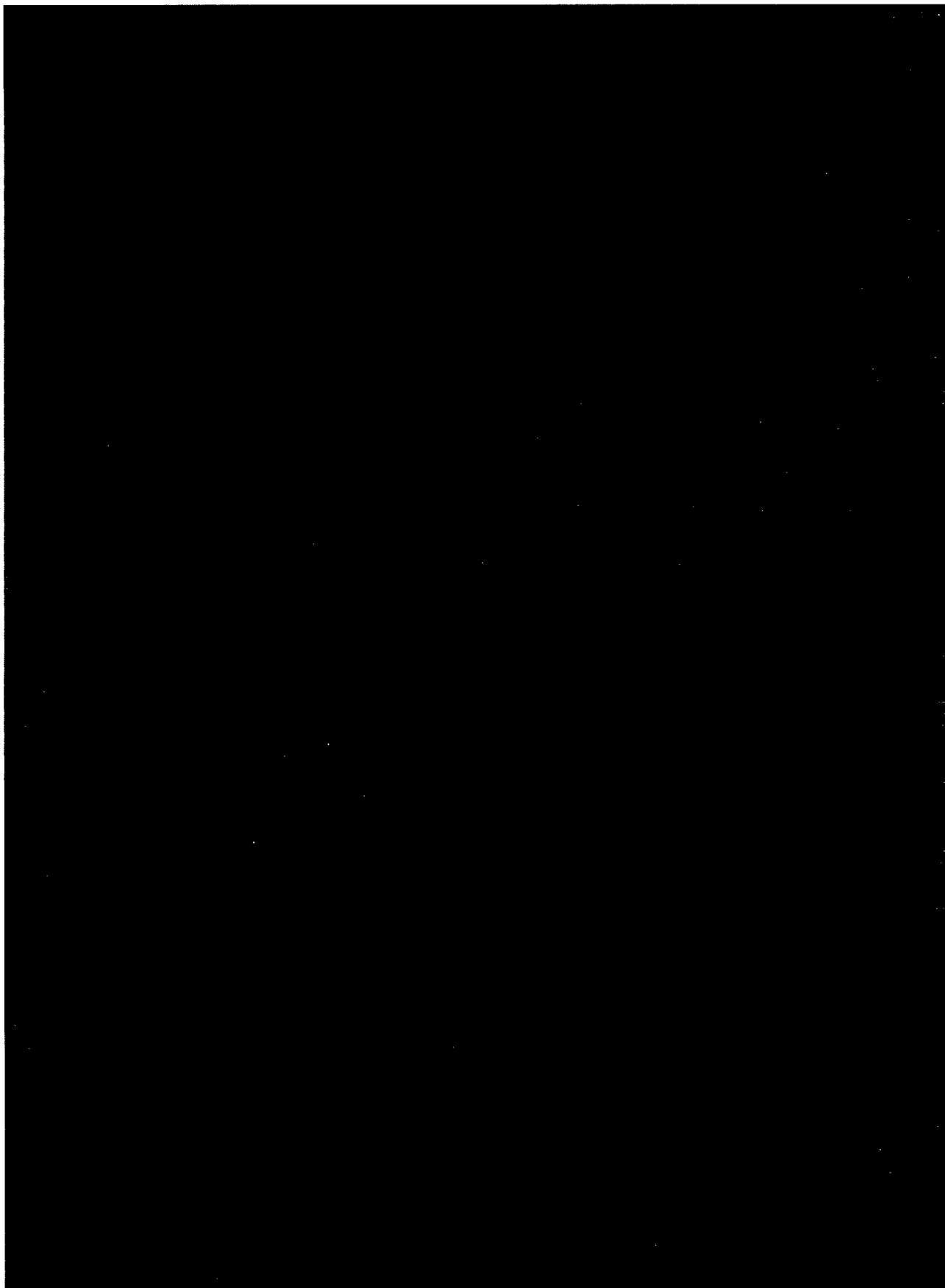
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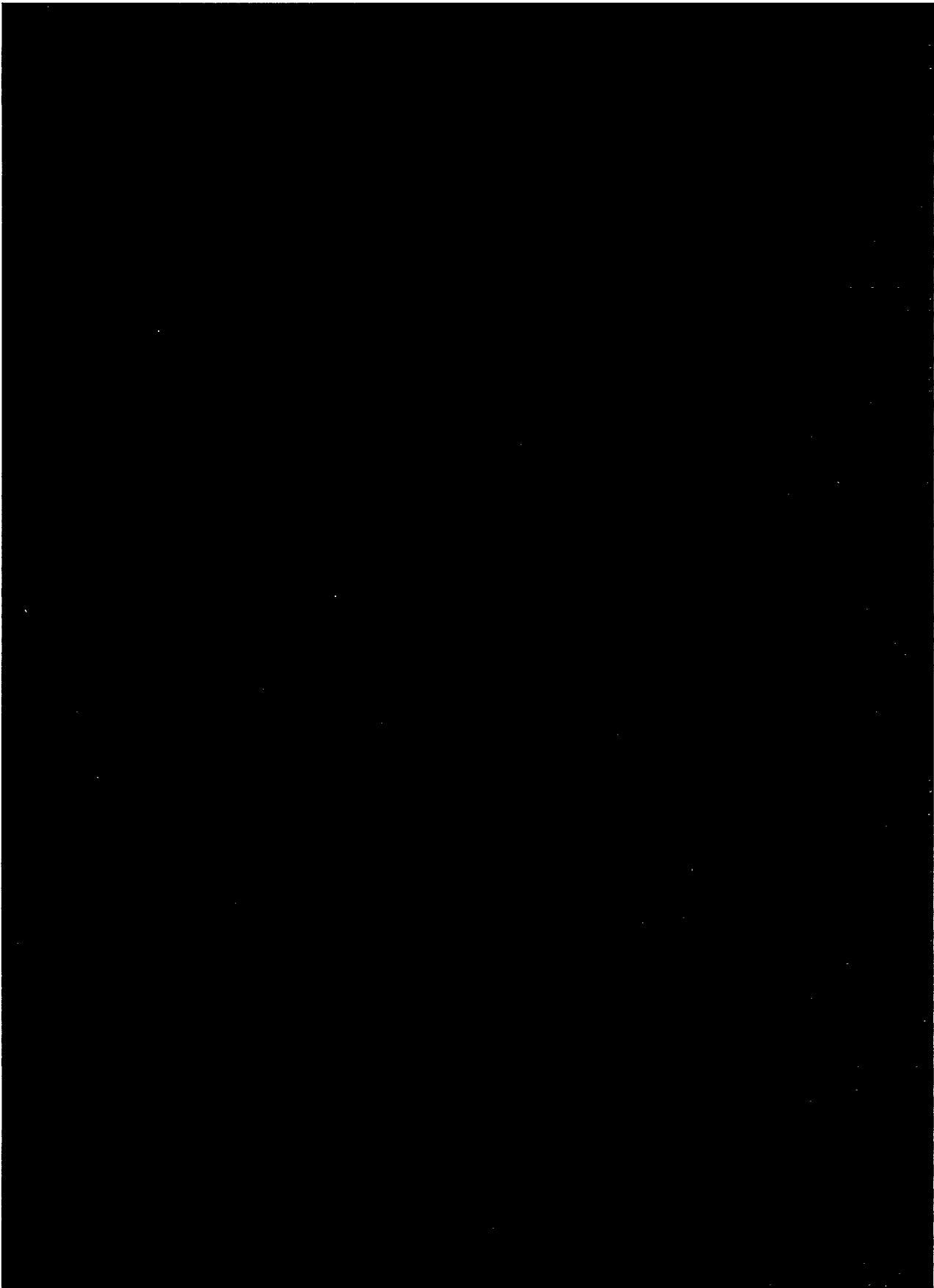
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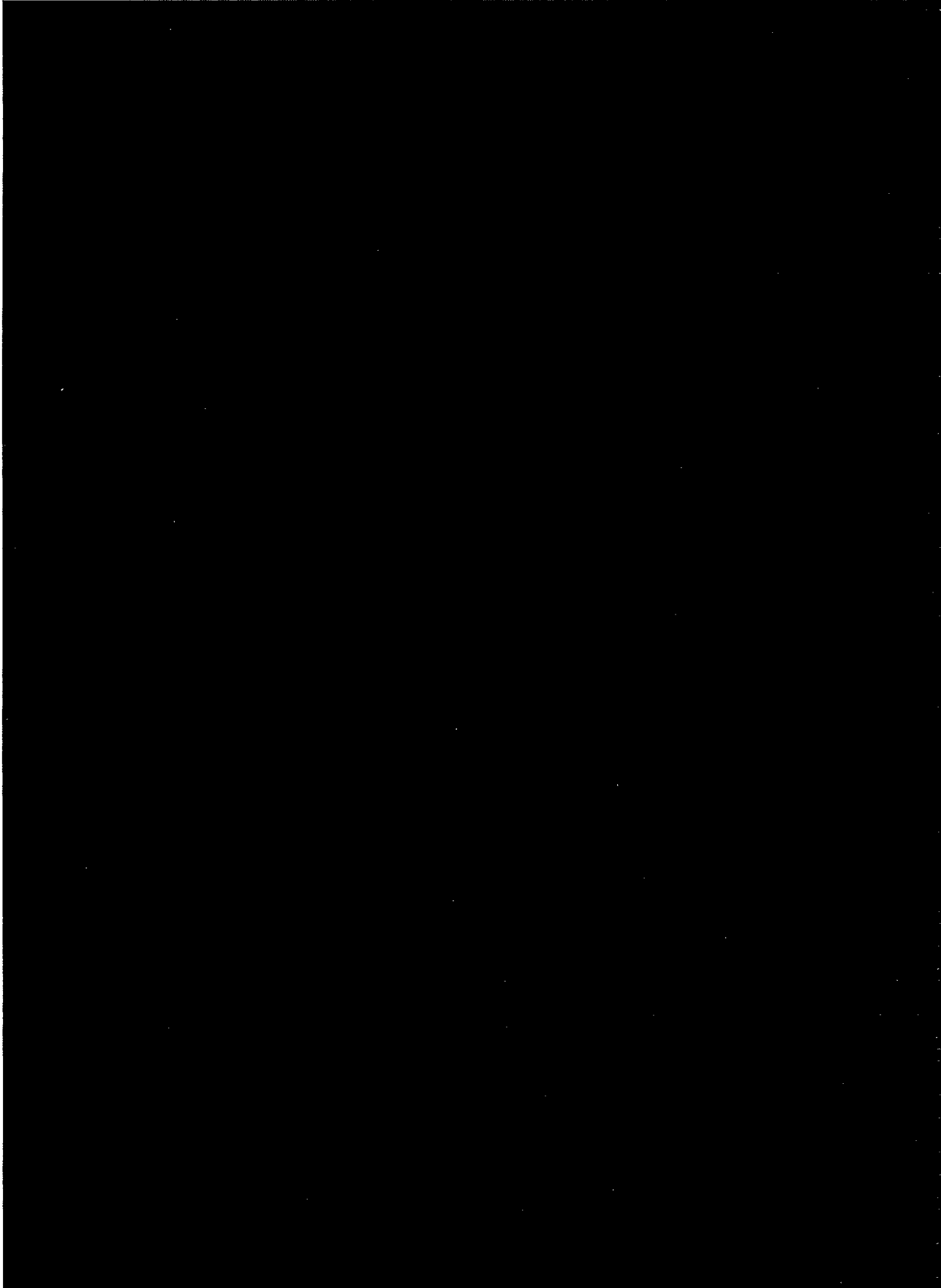


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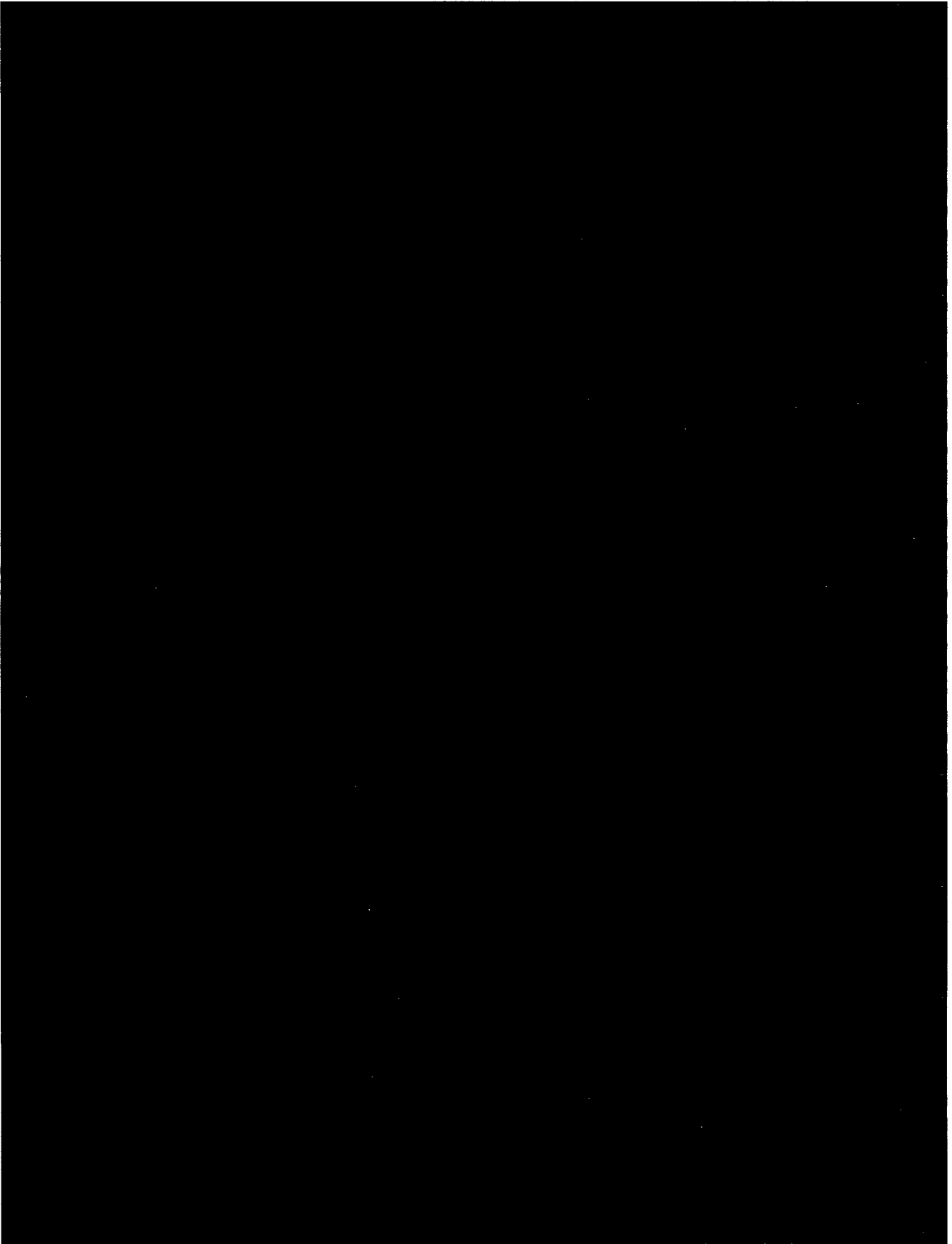




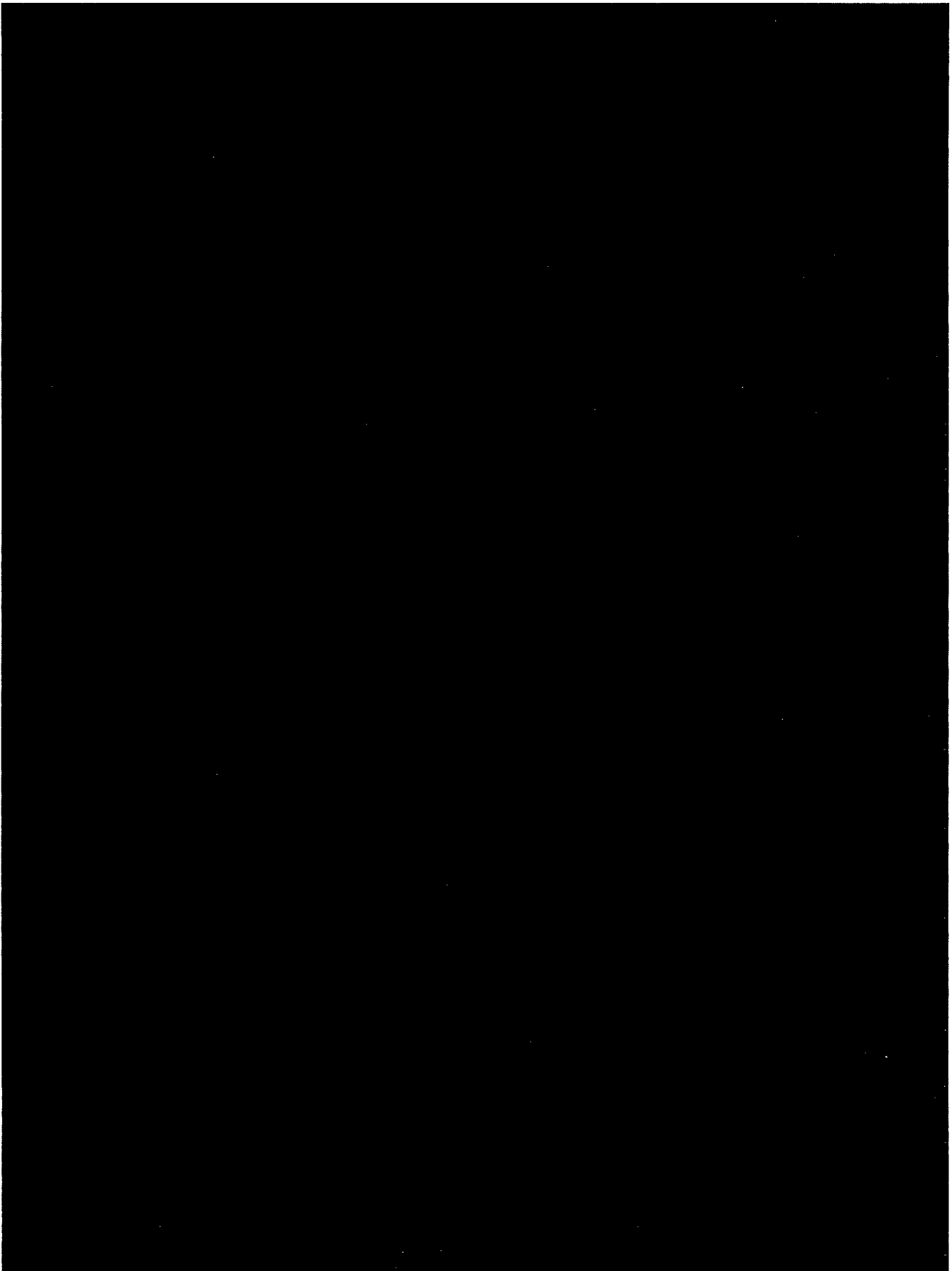
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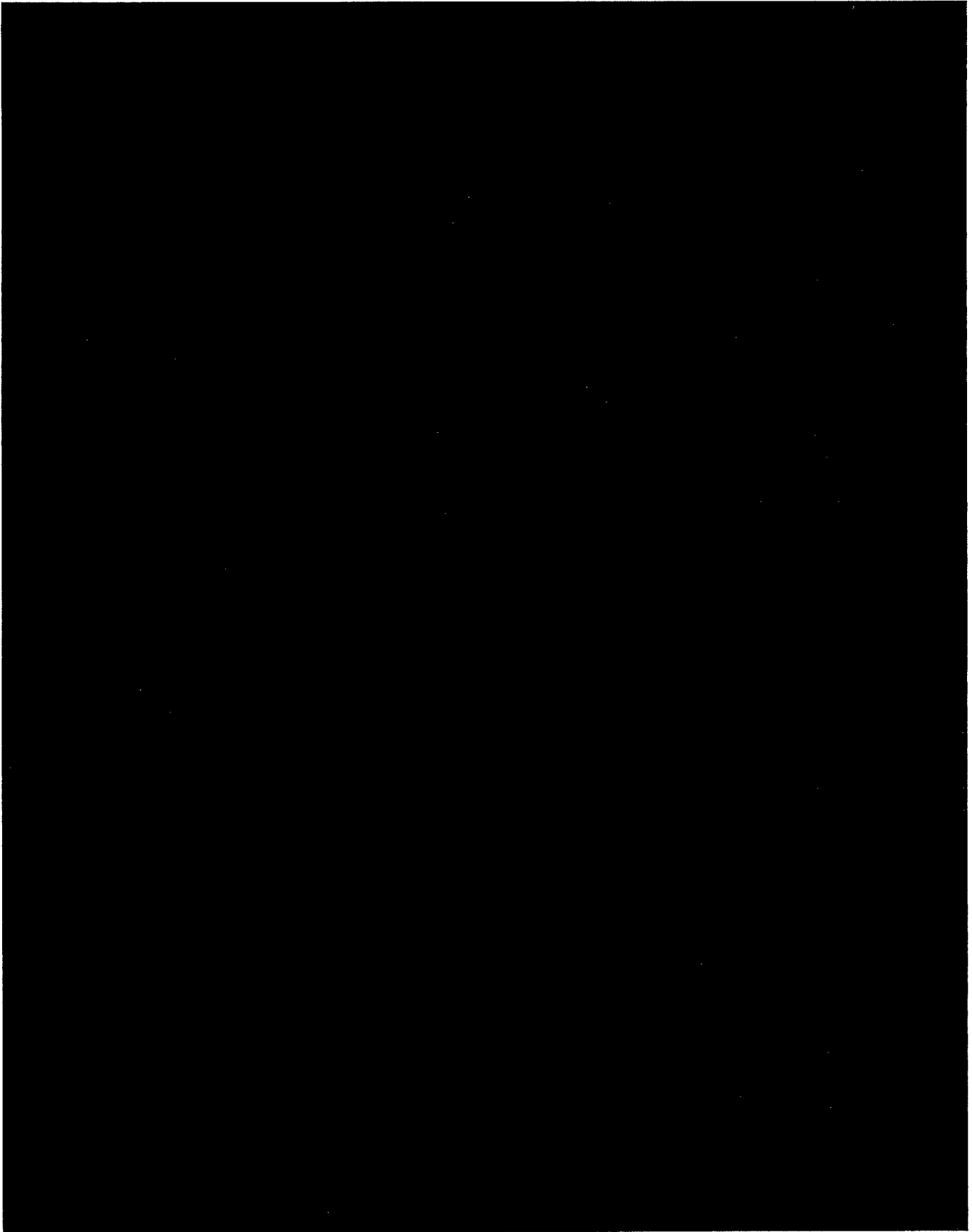
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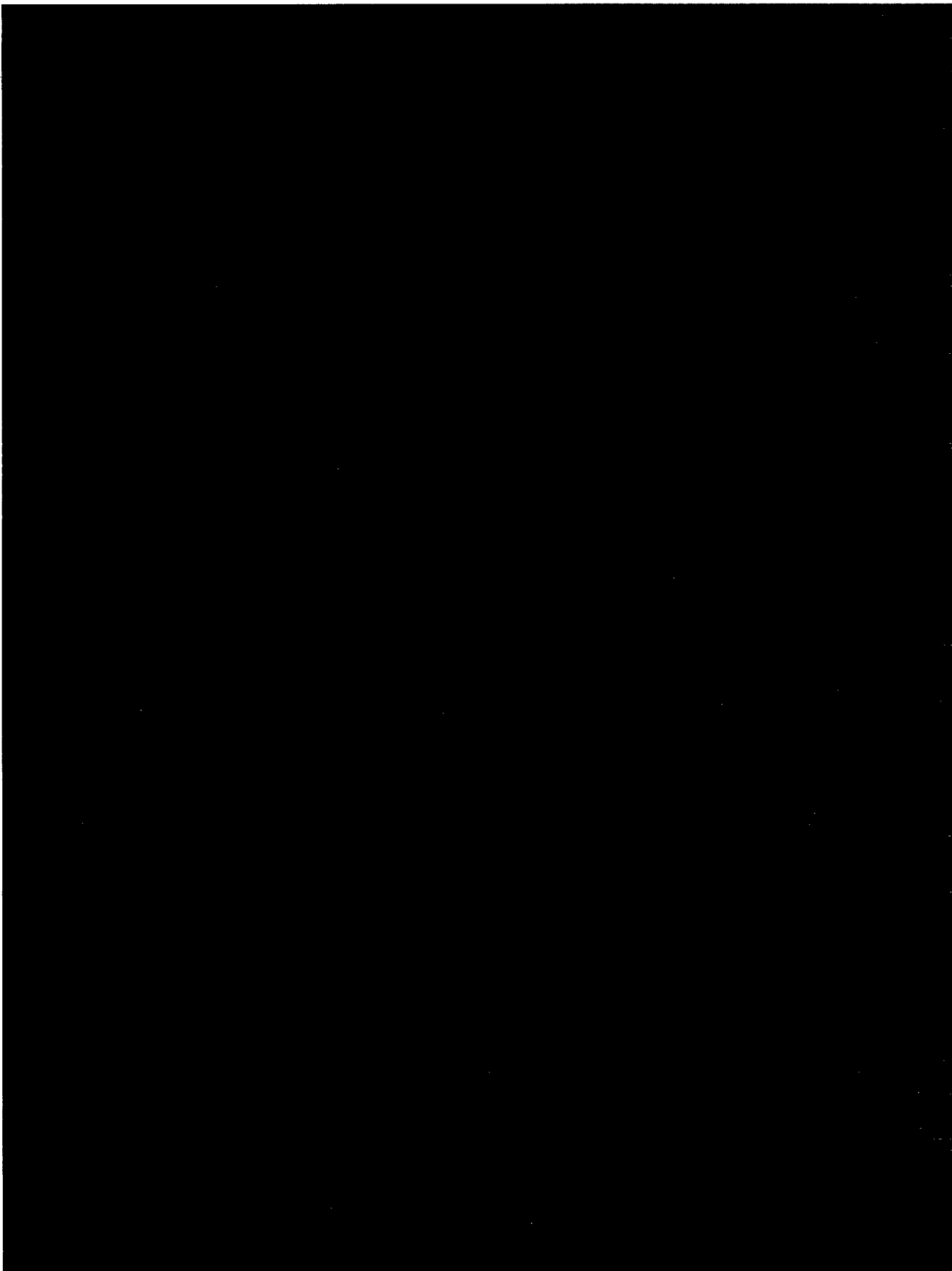
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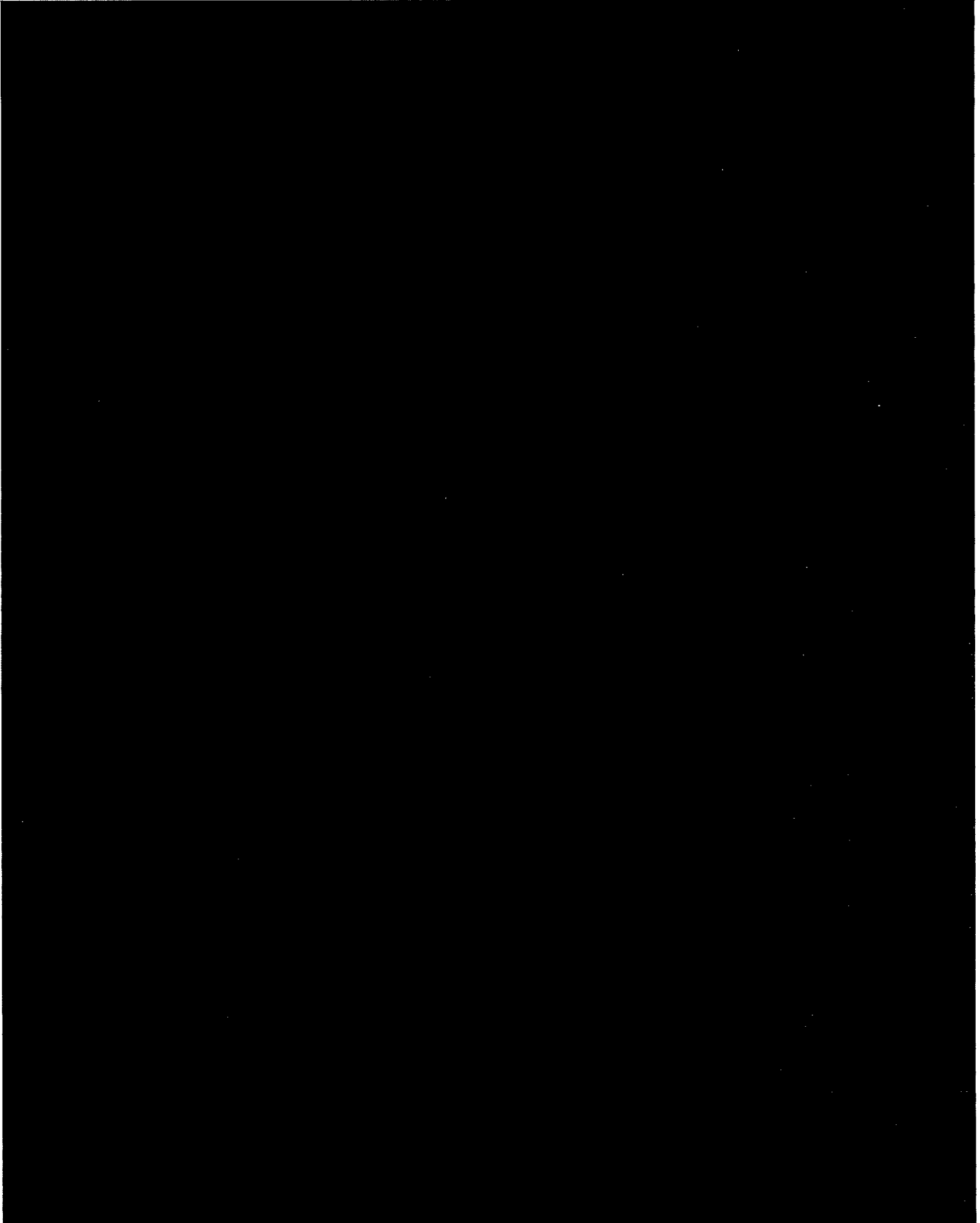
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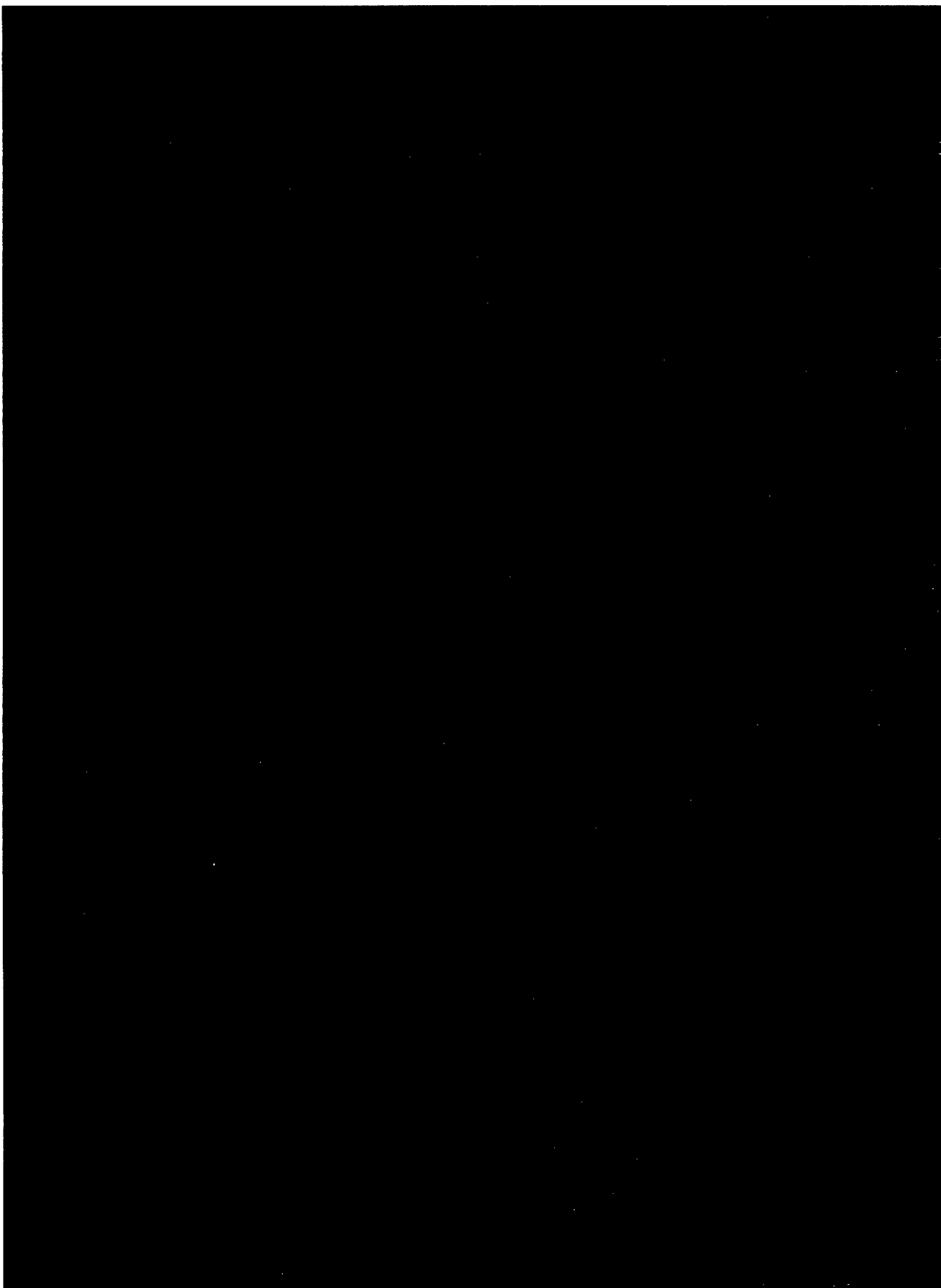
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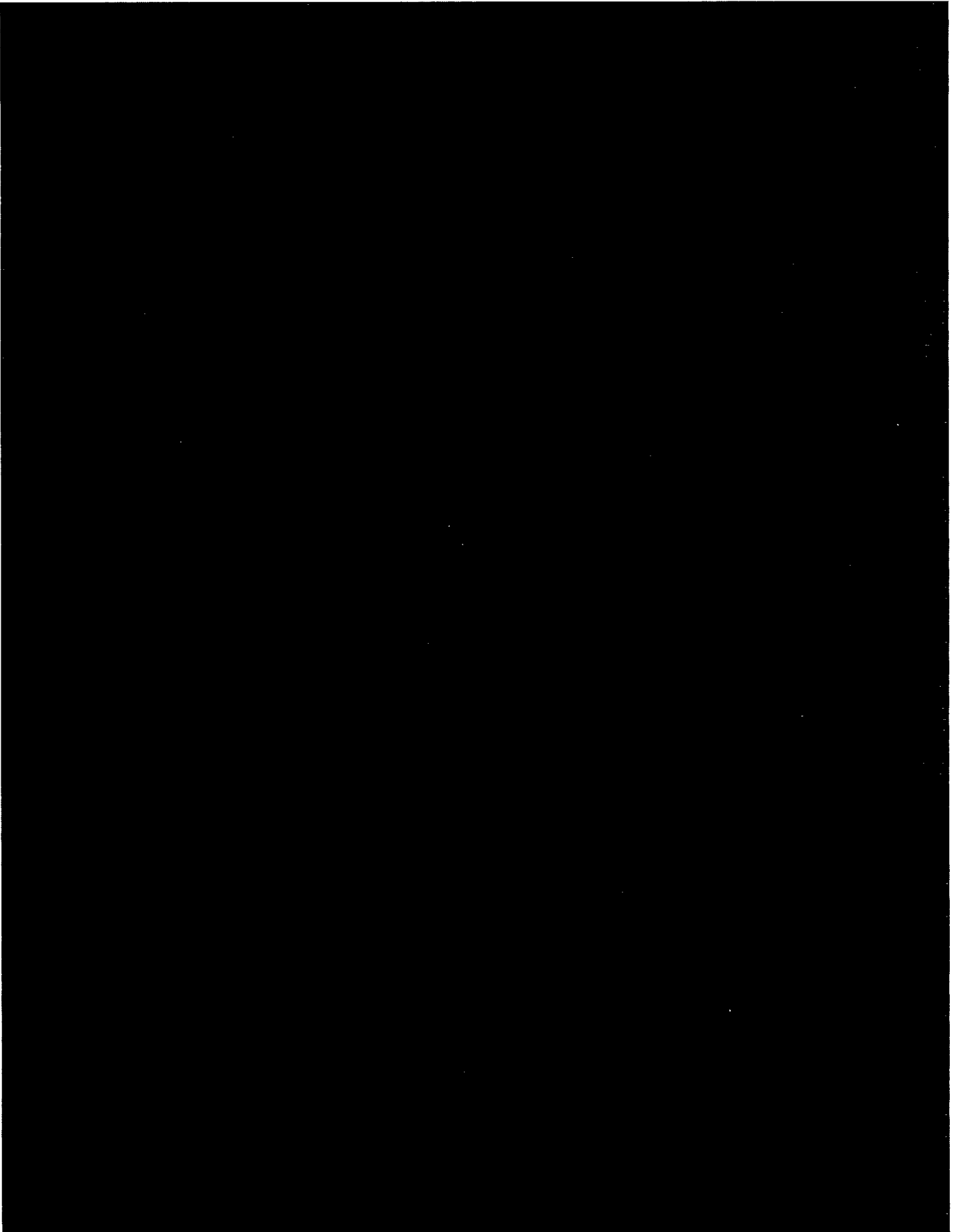
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Appendix G: Select WGN Data For Distant Viewing Households Provided By Nielsen To MLB

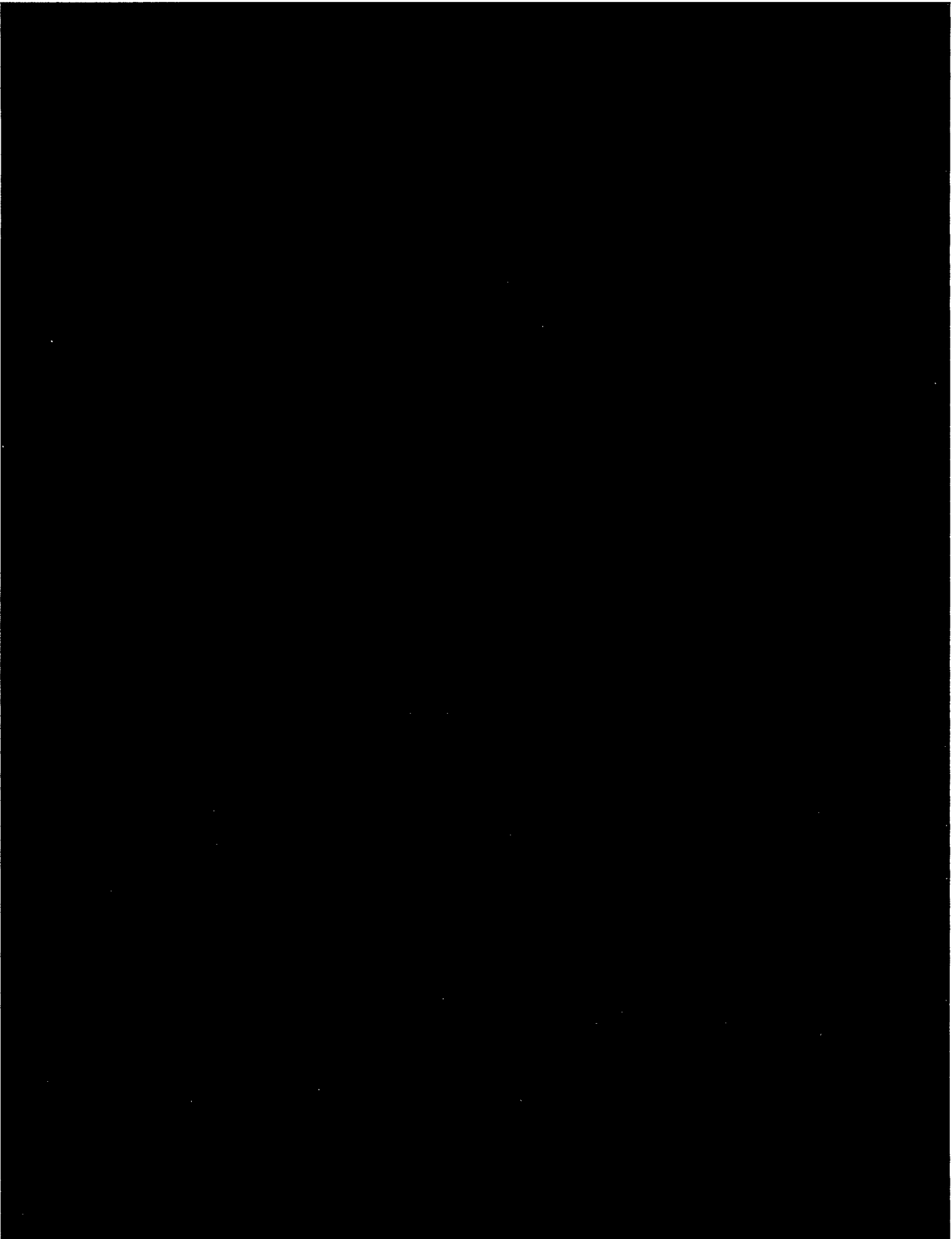


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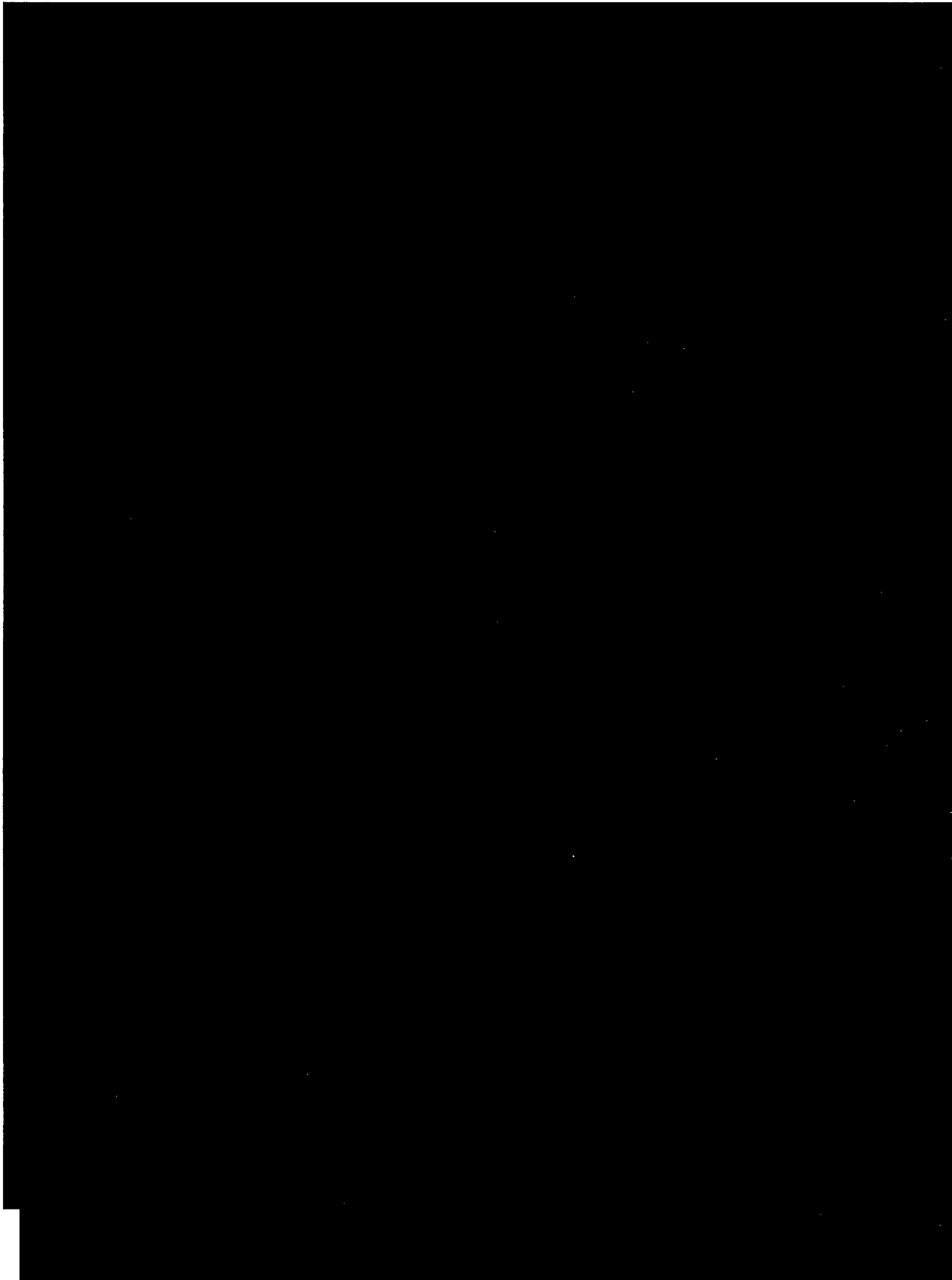
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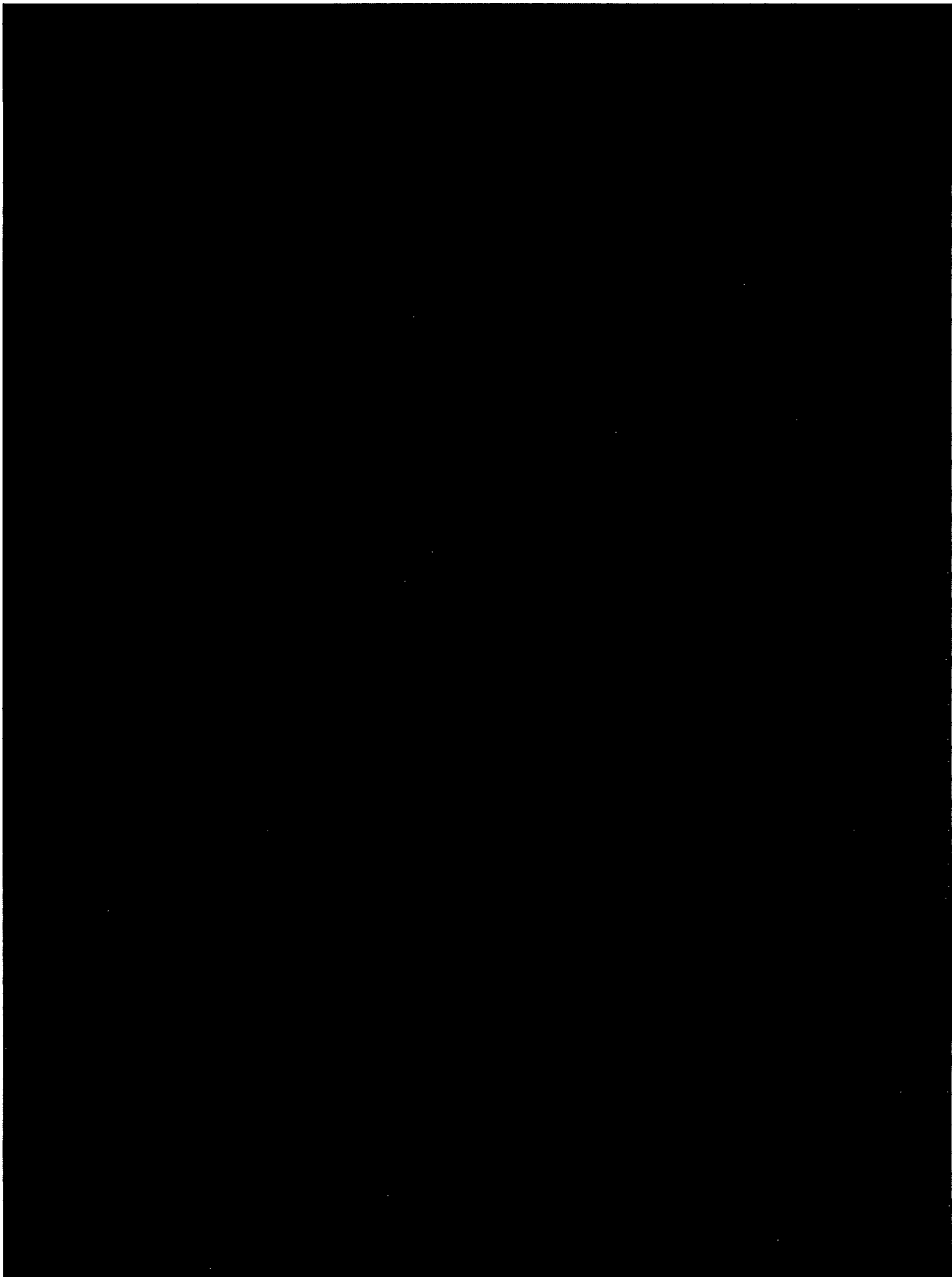
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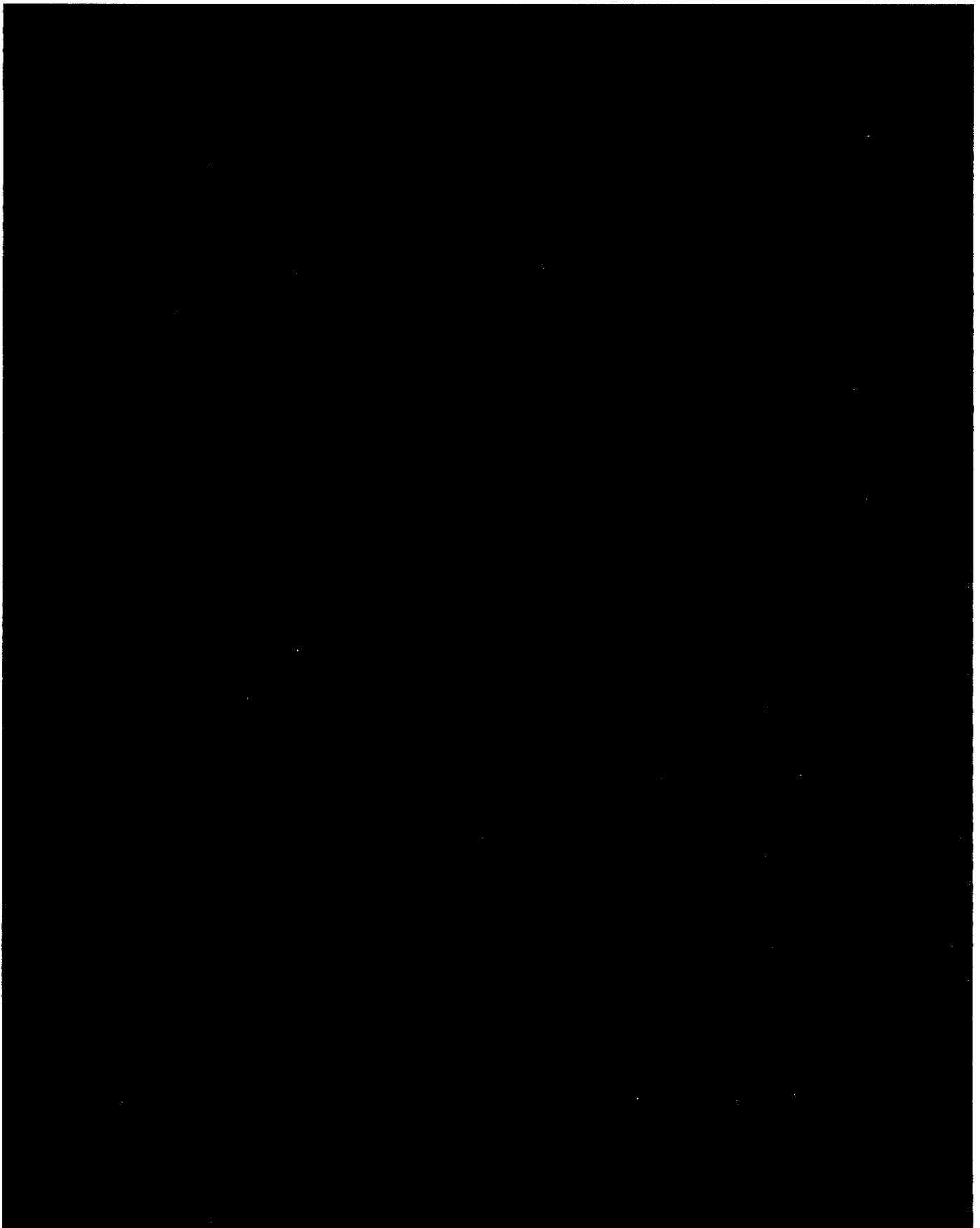
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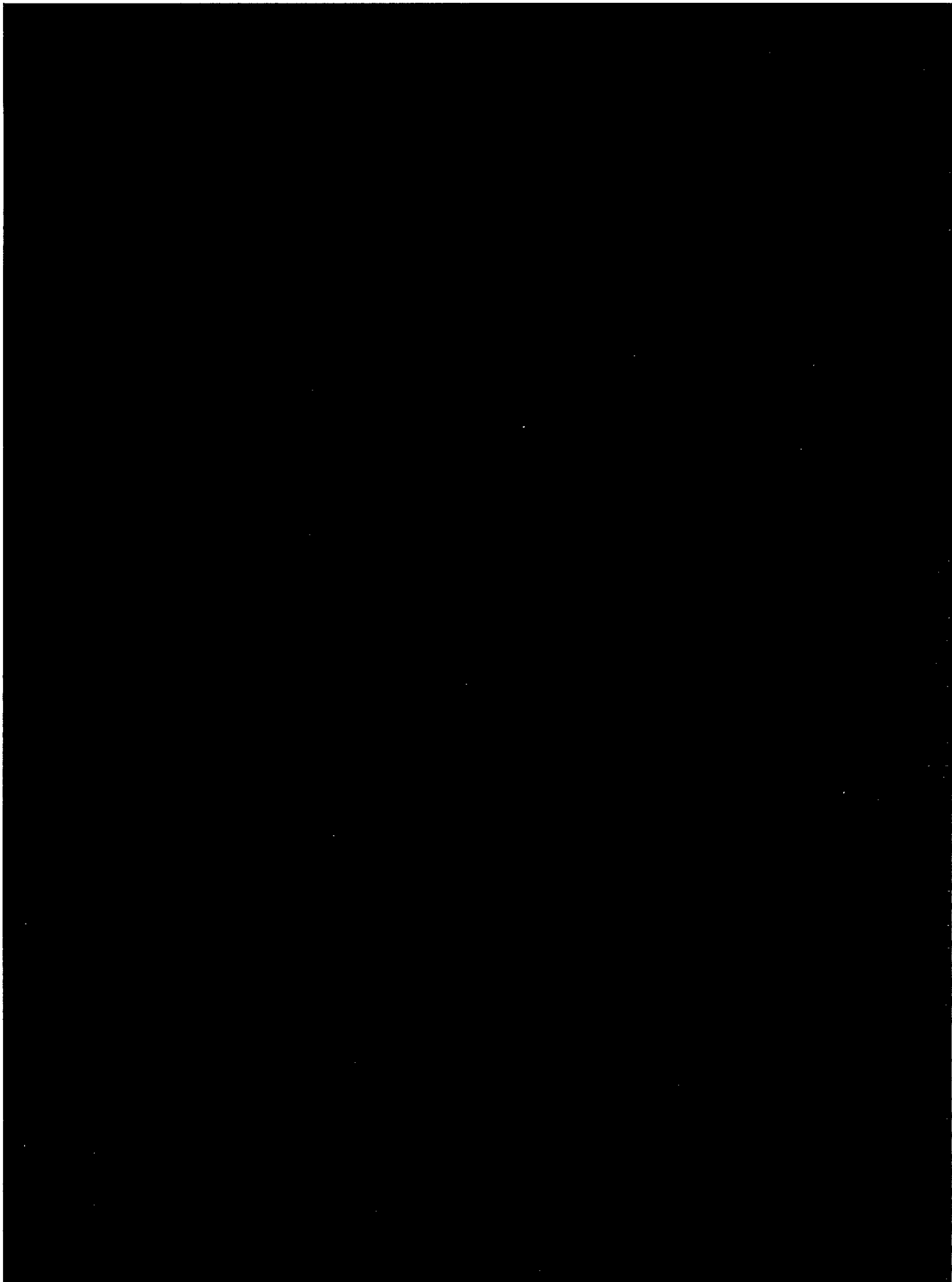
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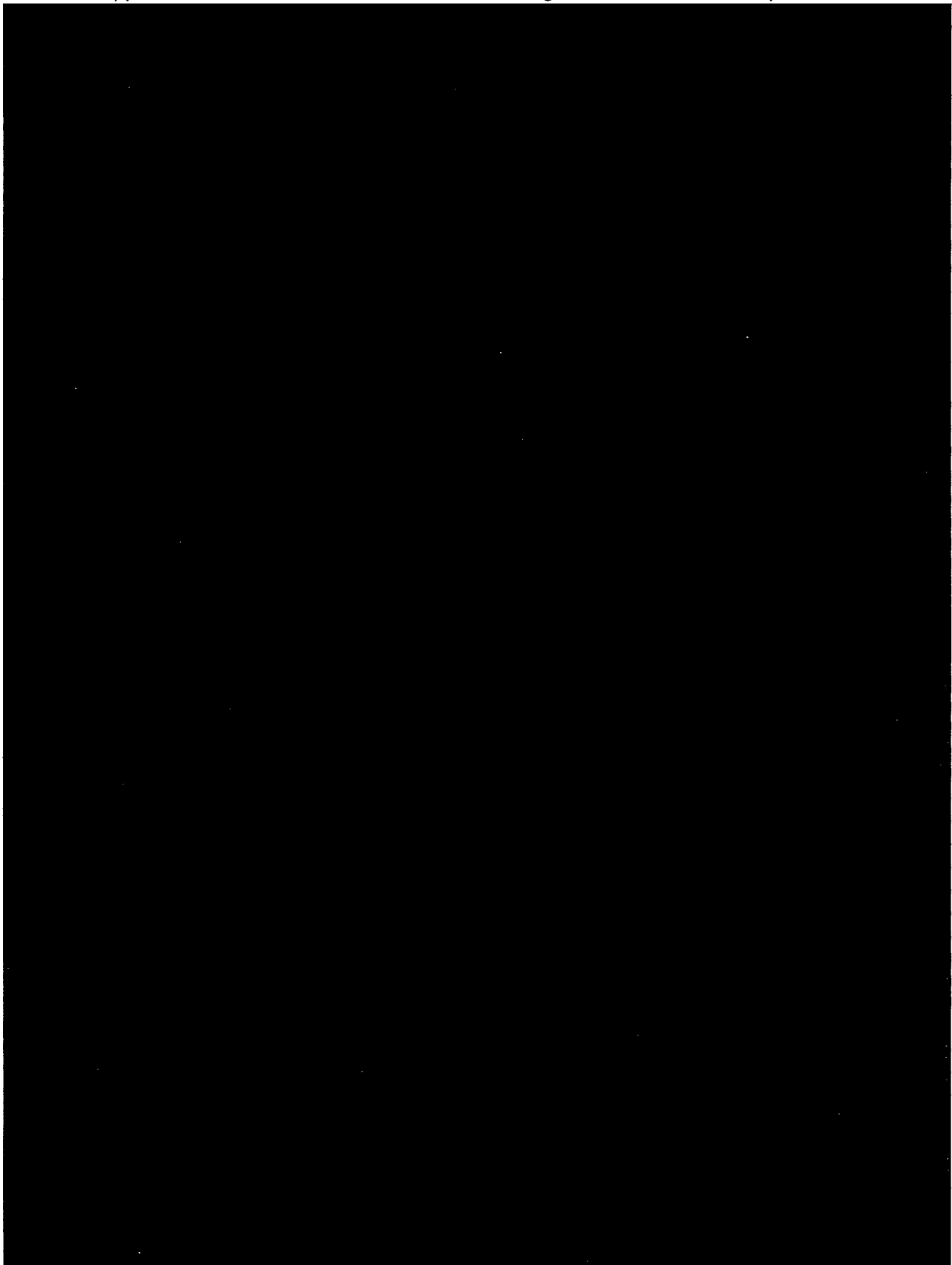
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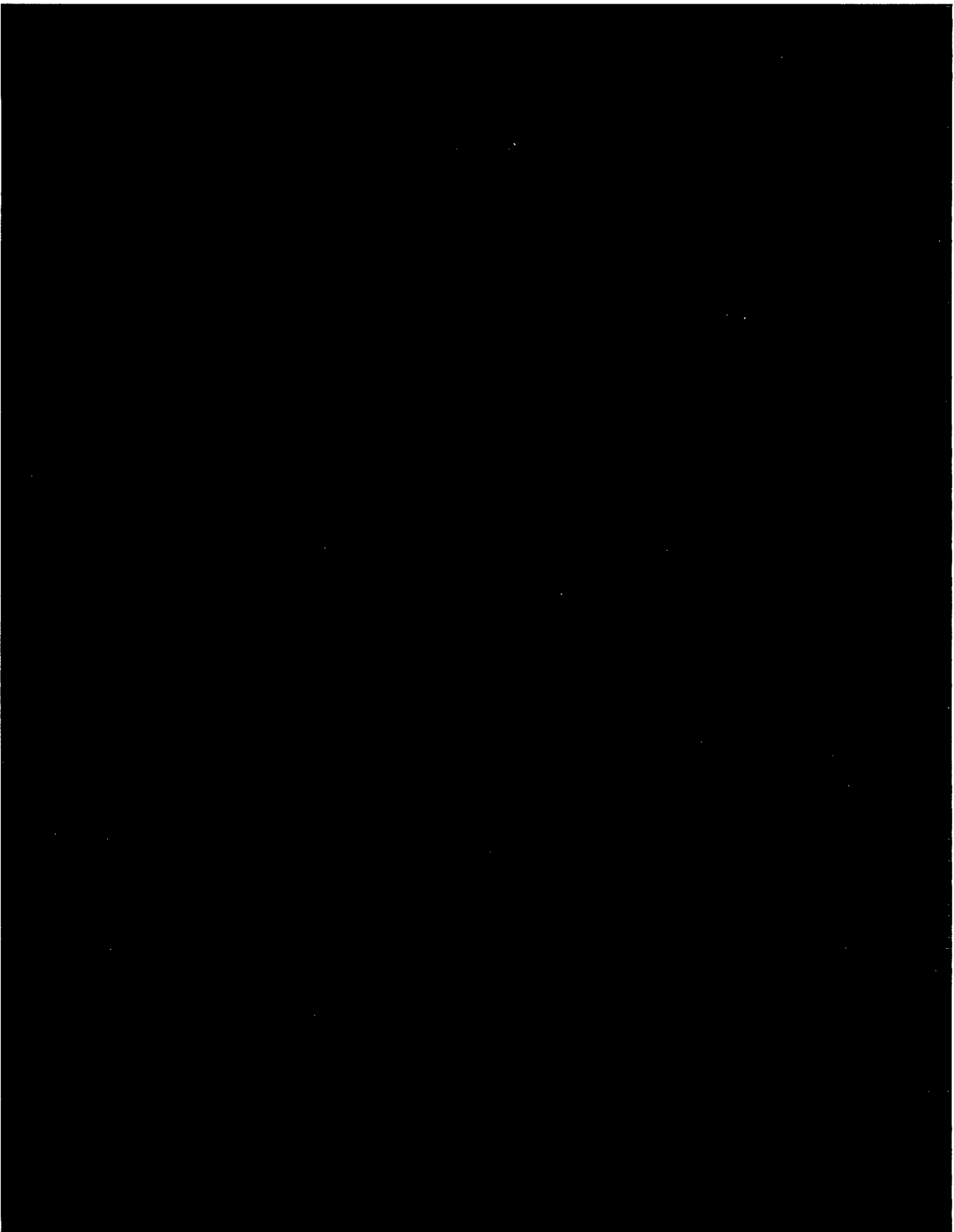
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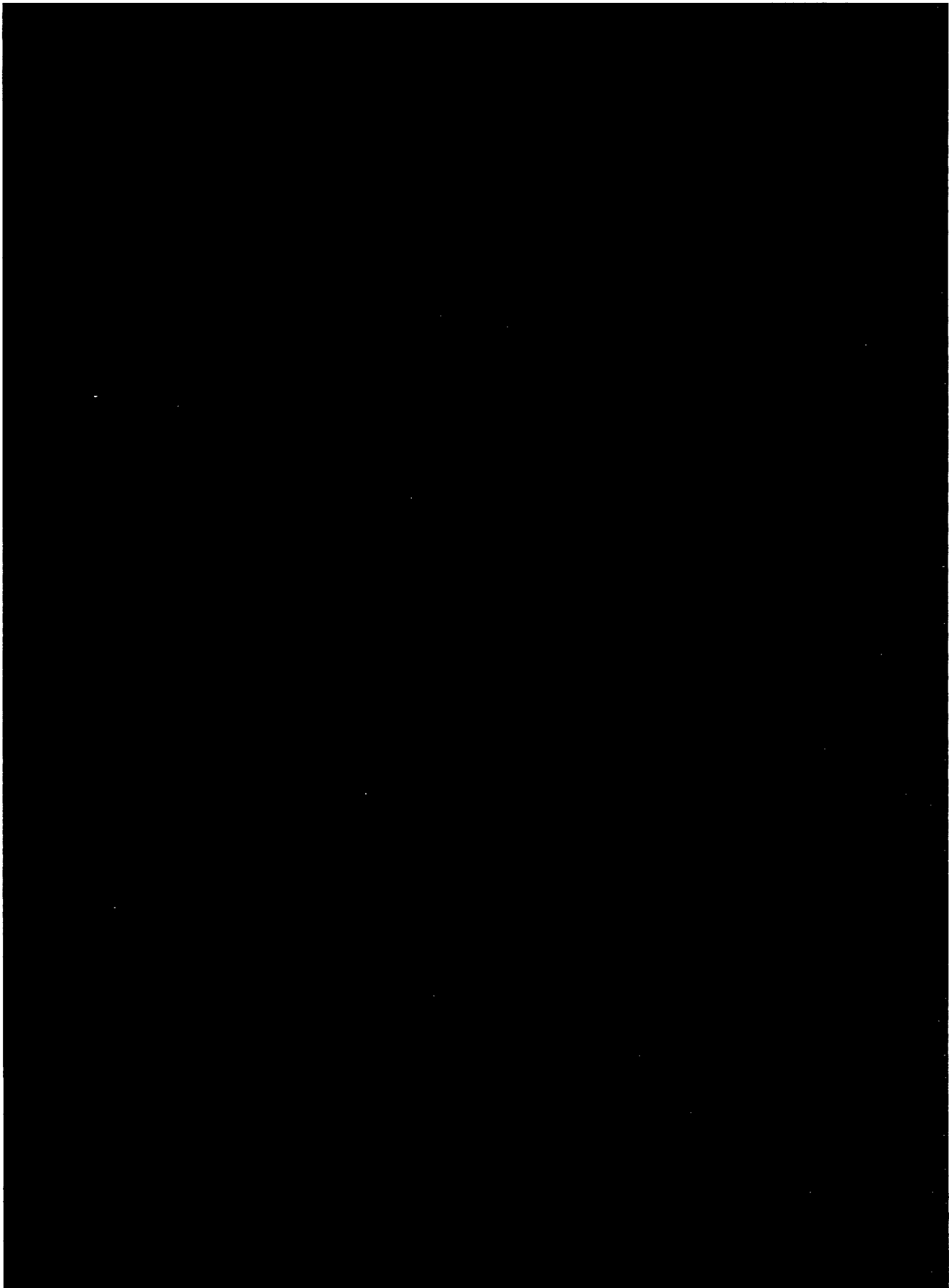


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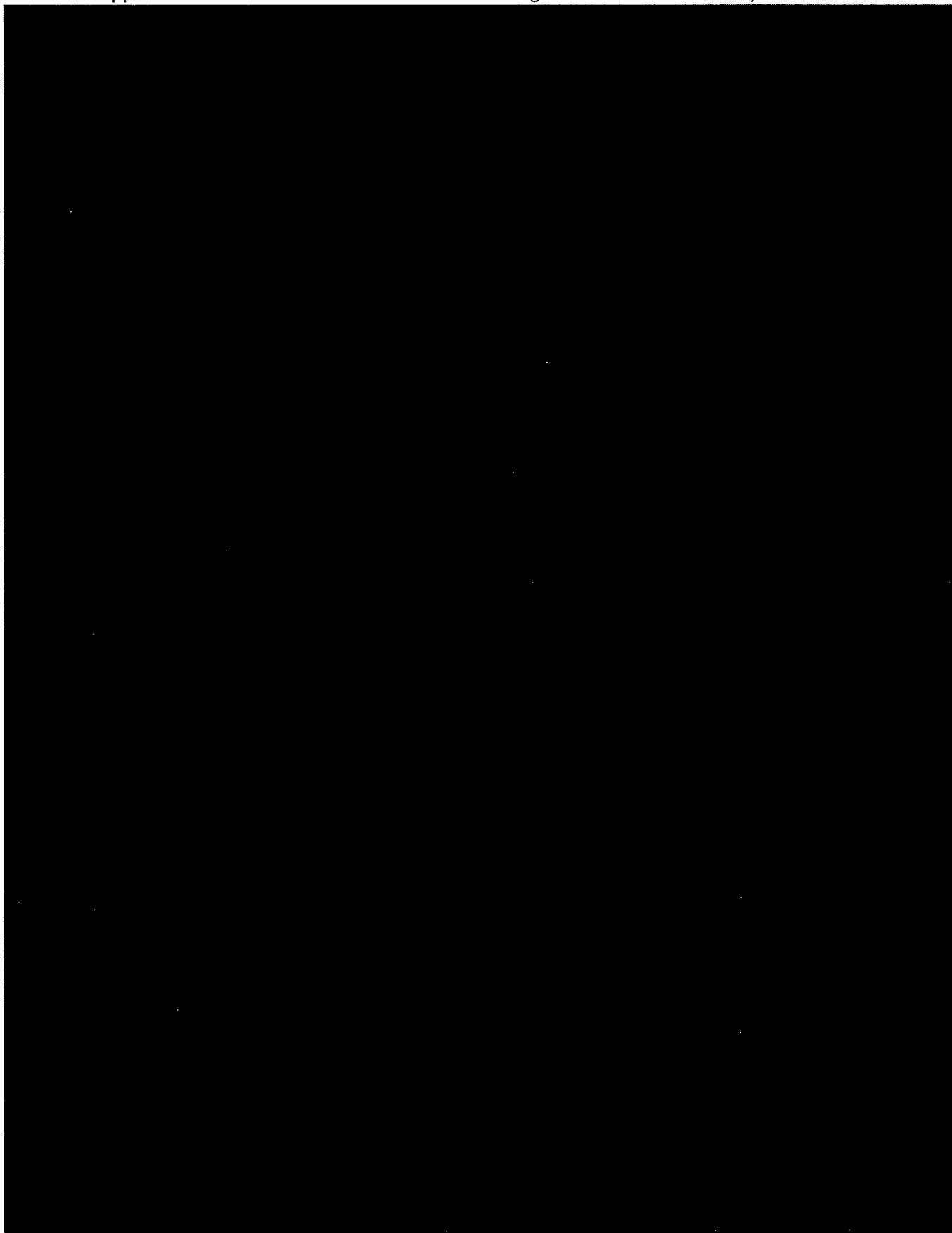




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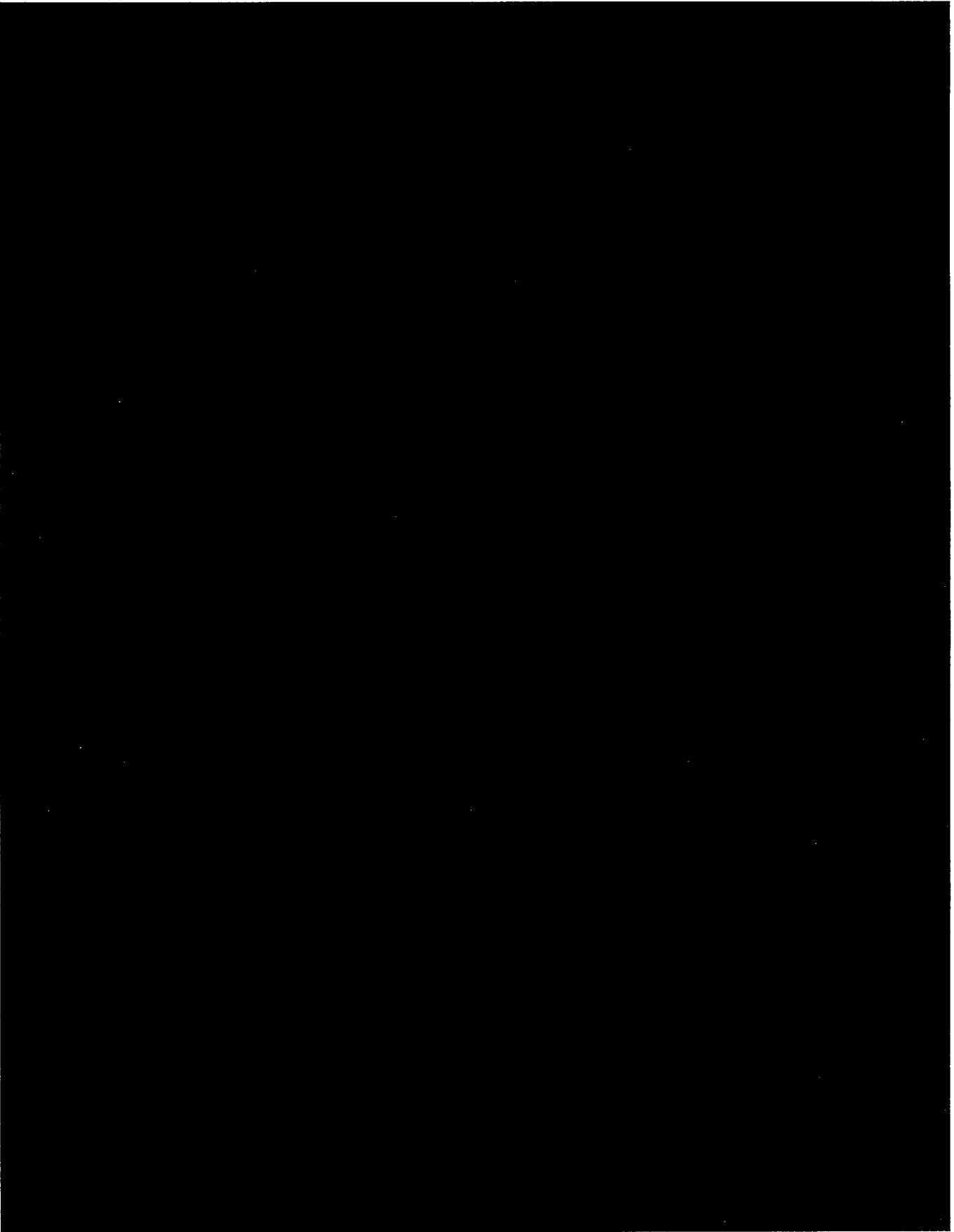
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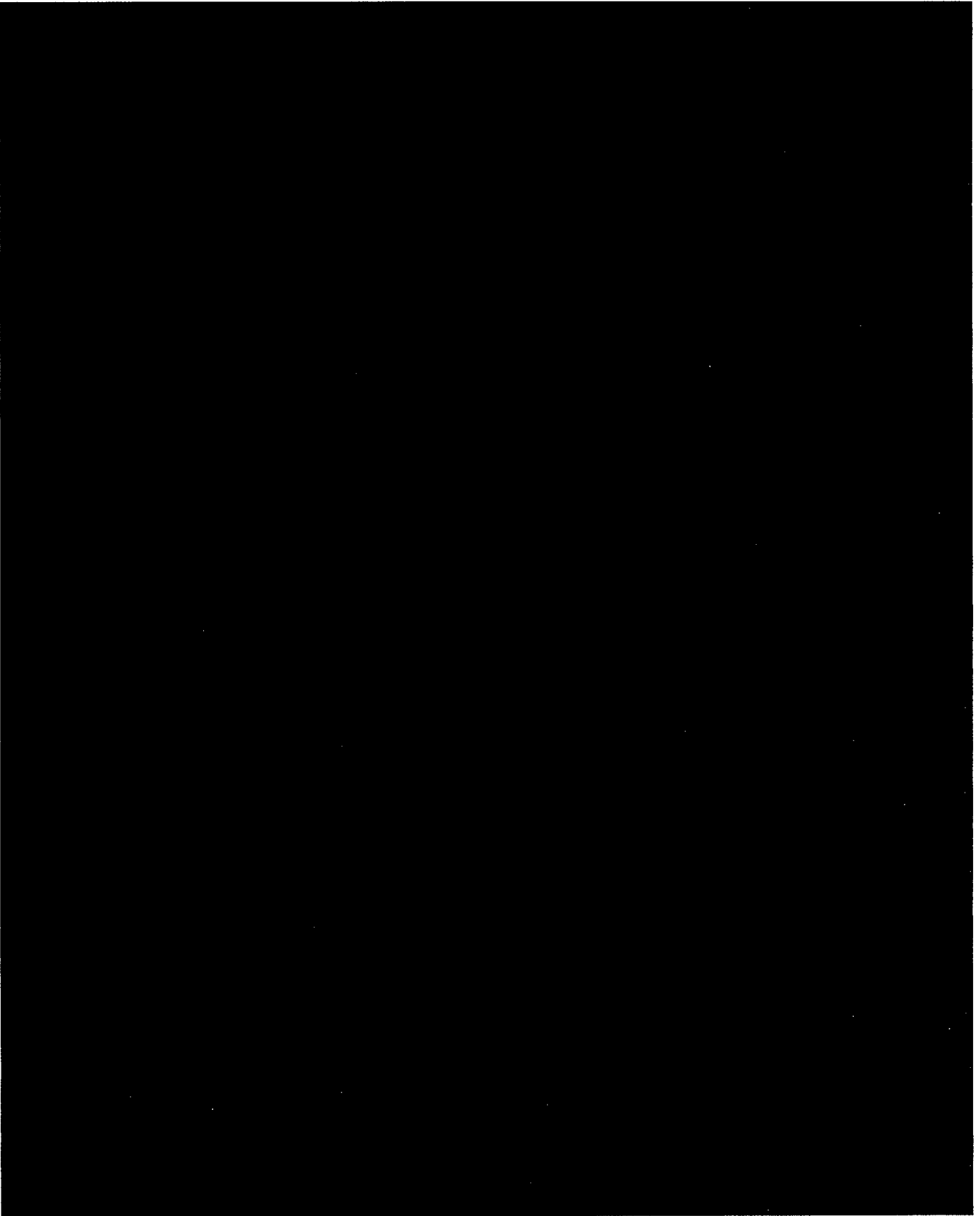
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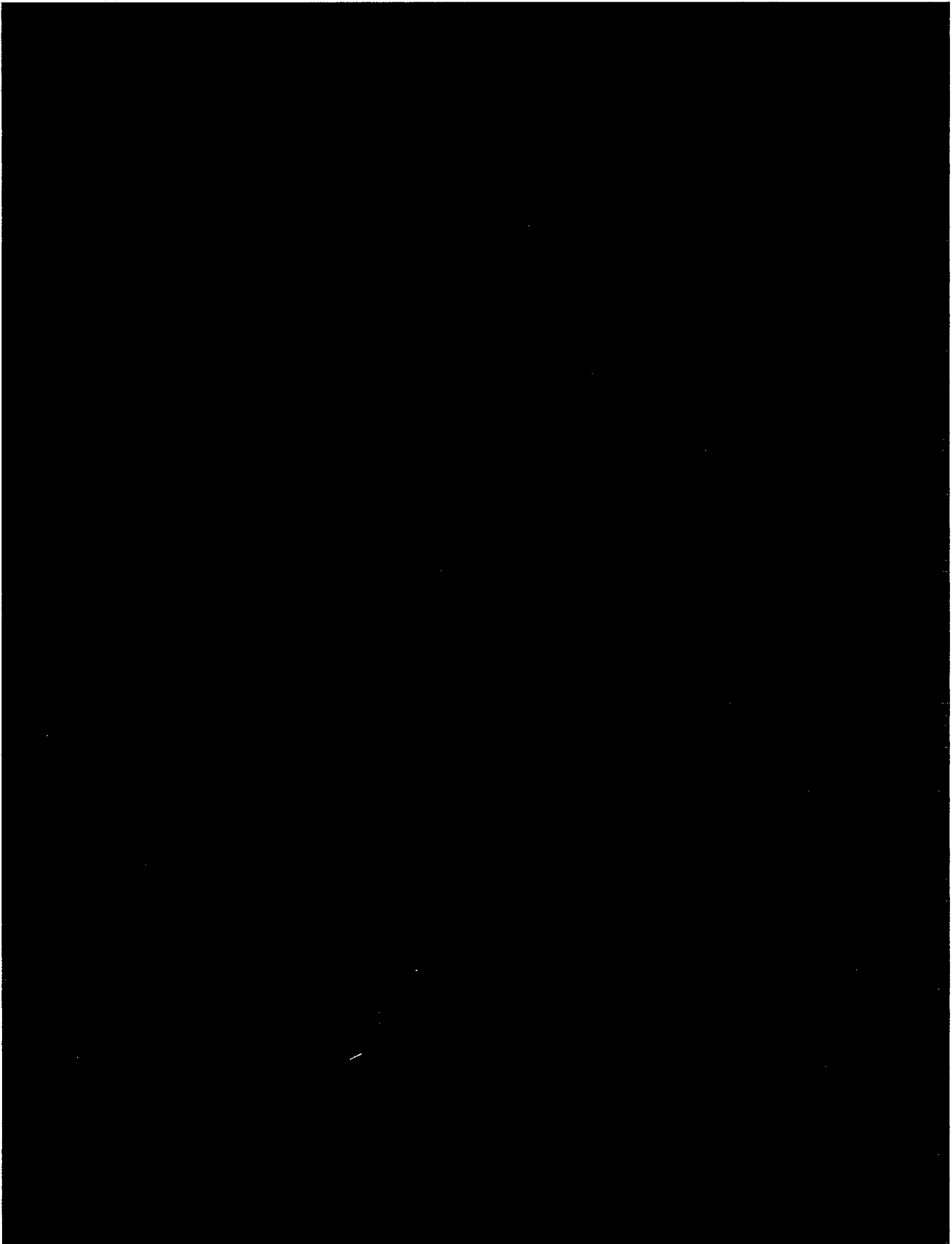
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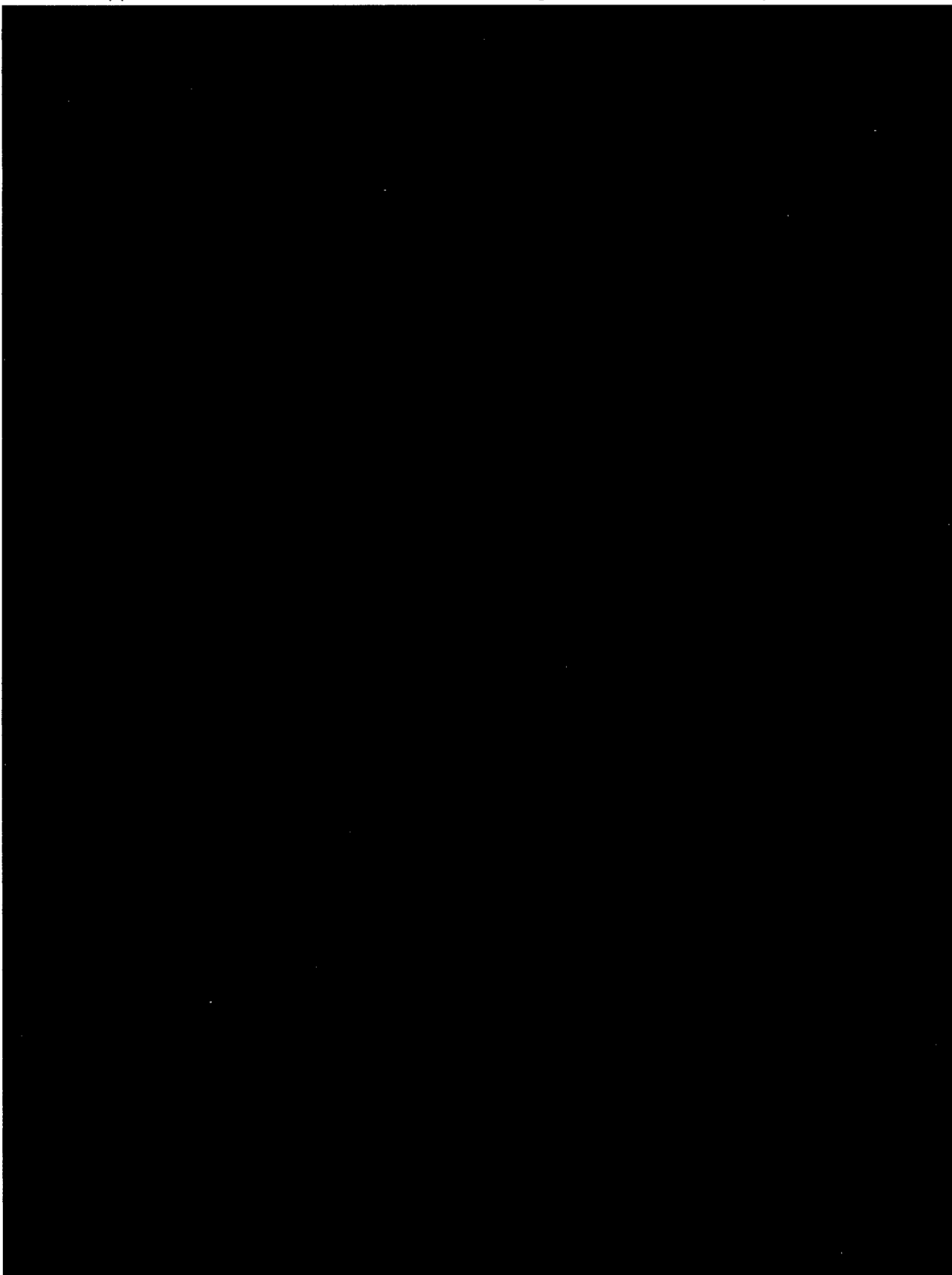
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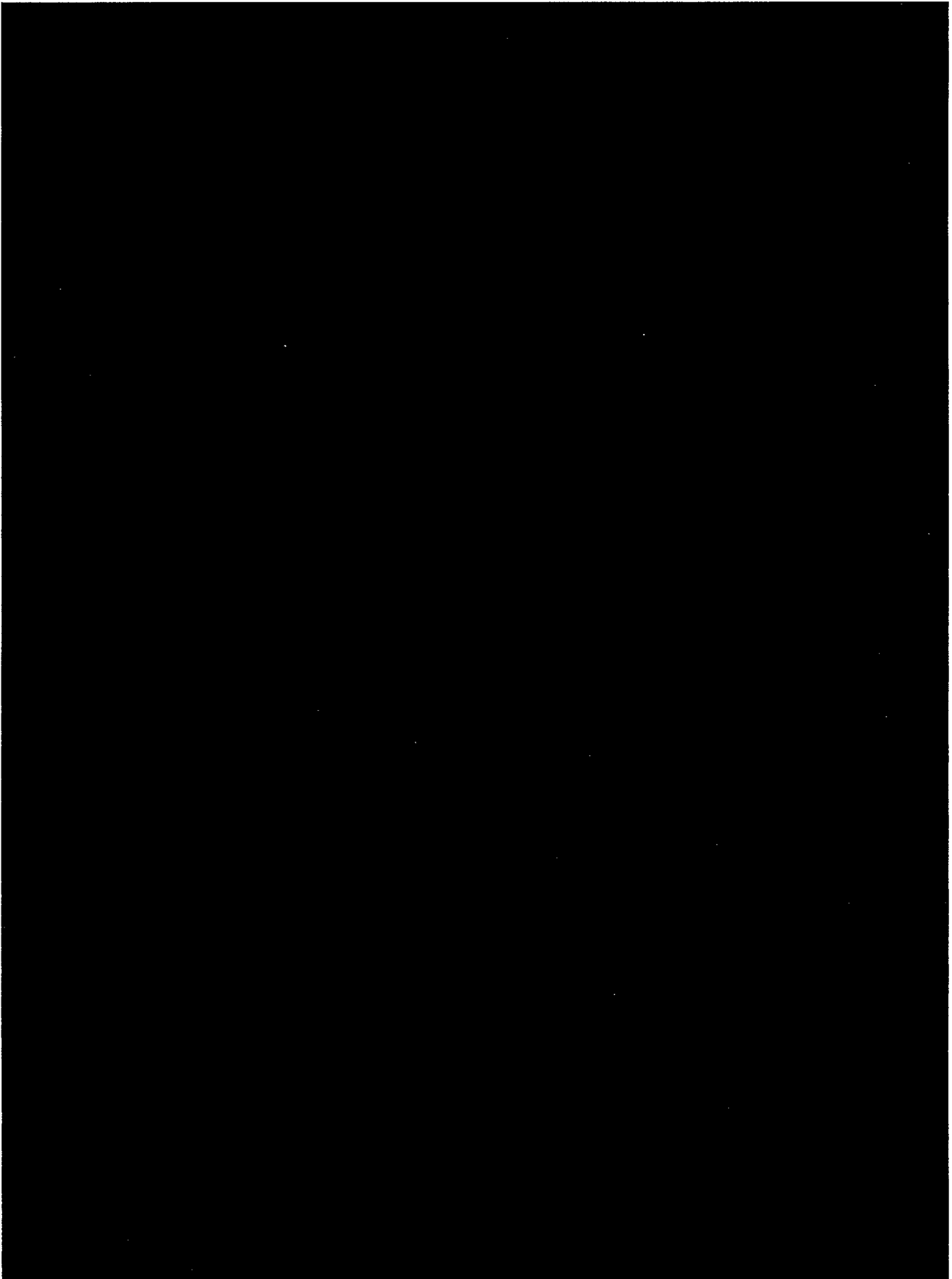
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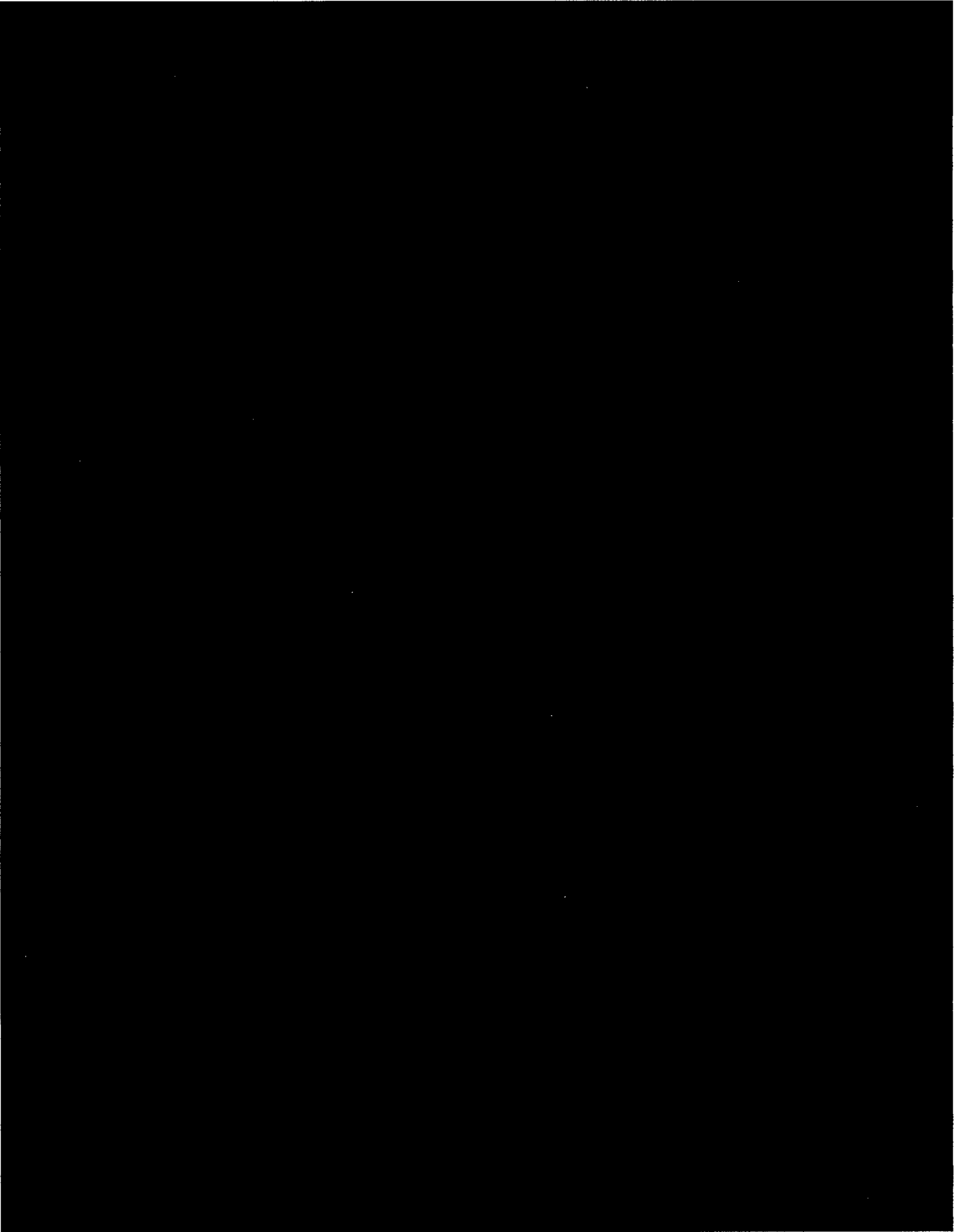


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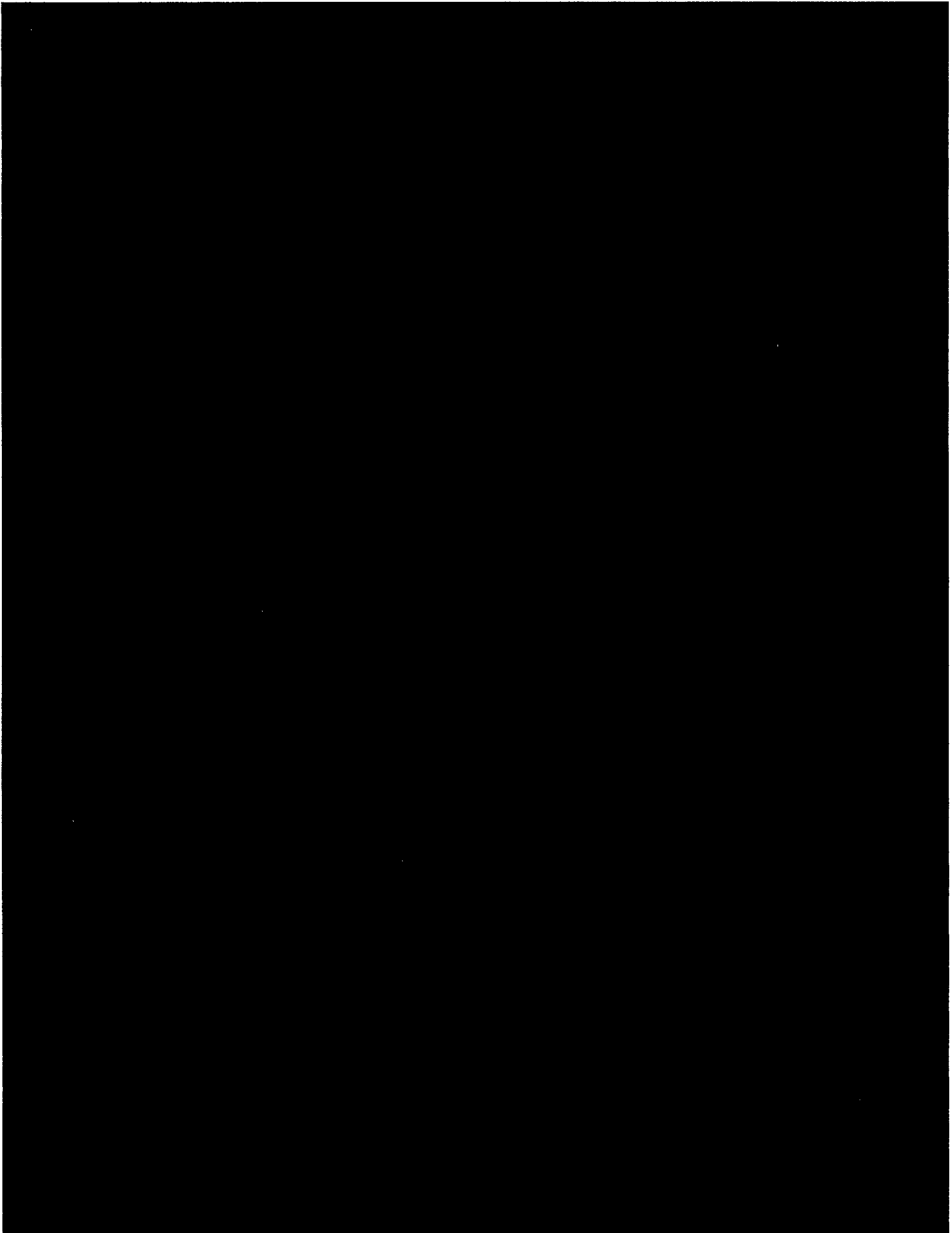




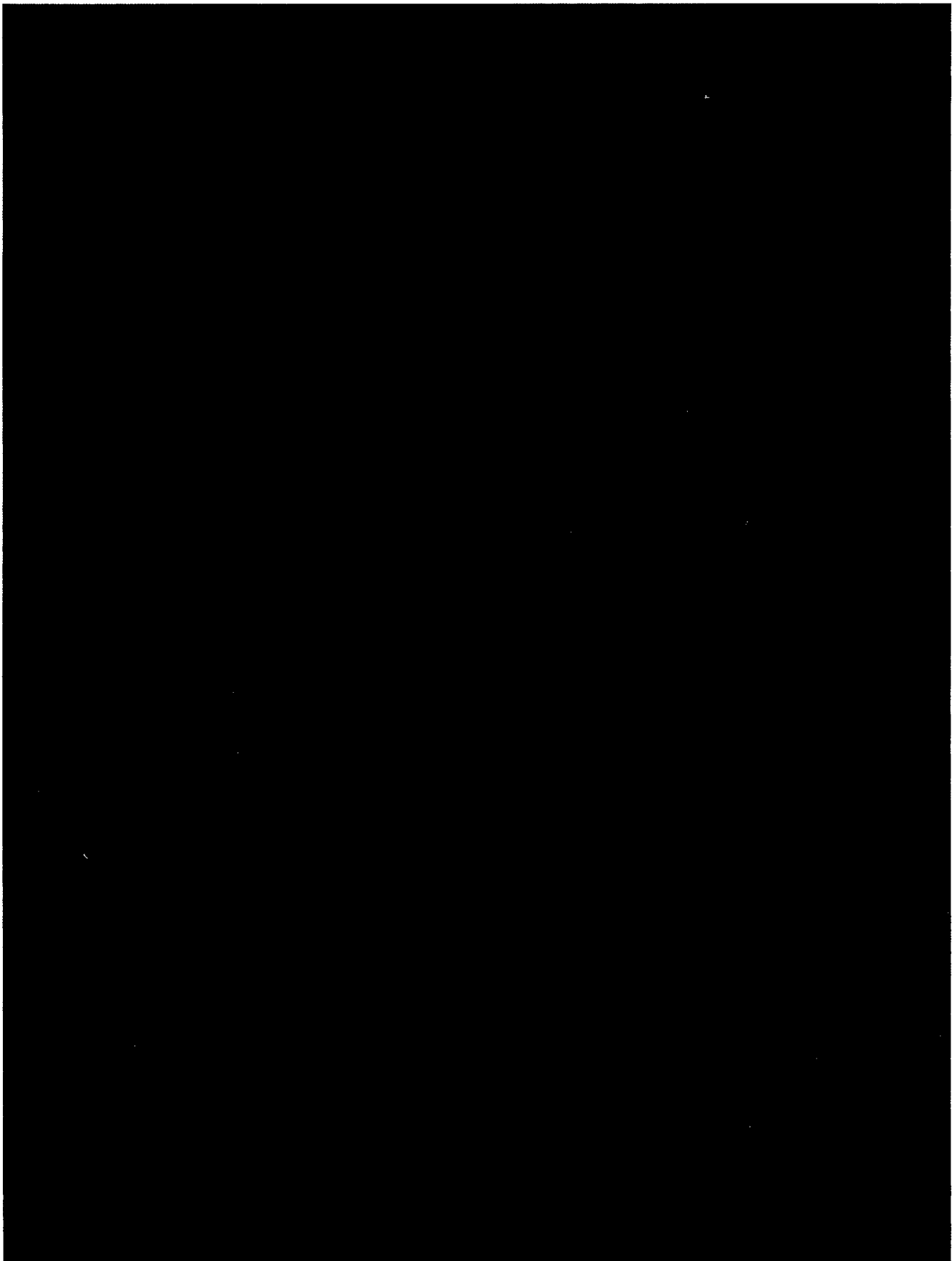
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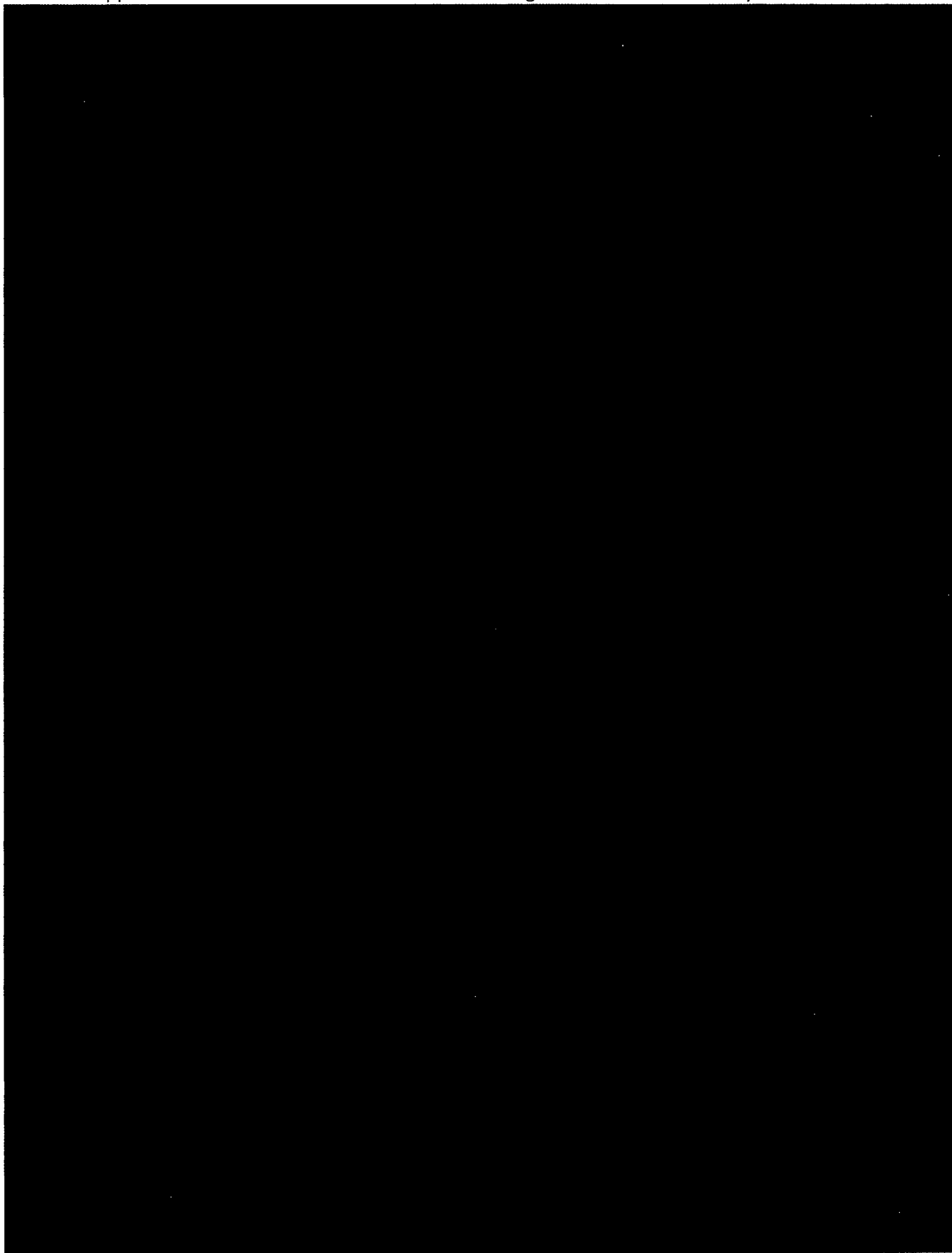
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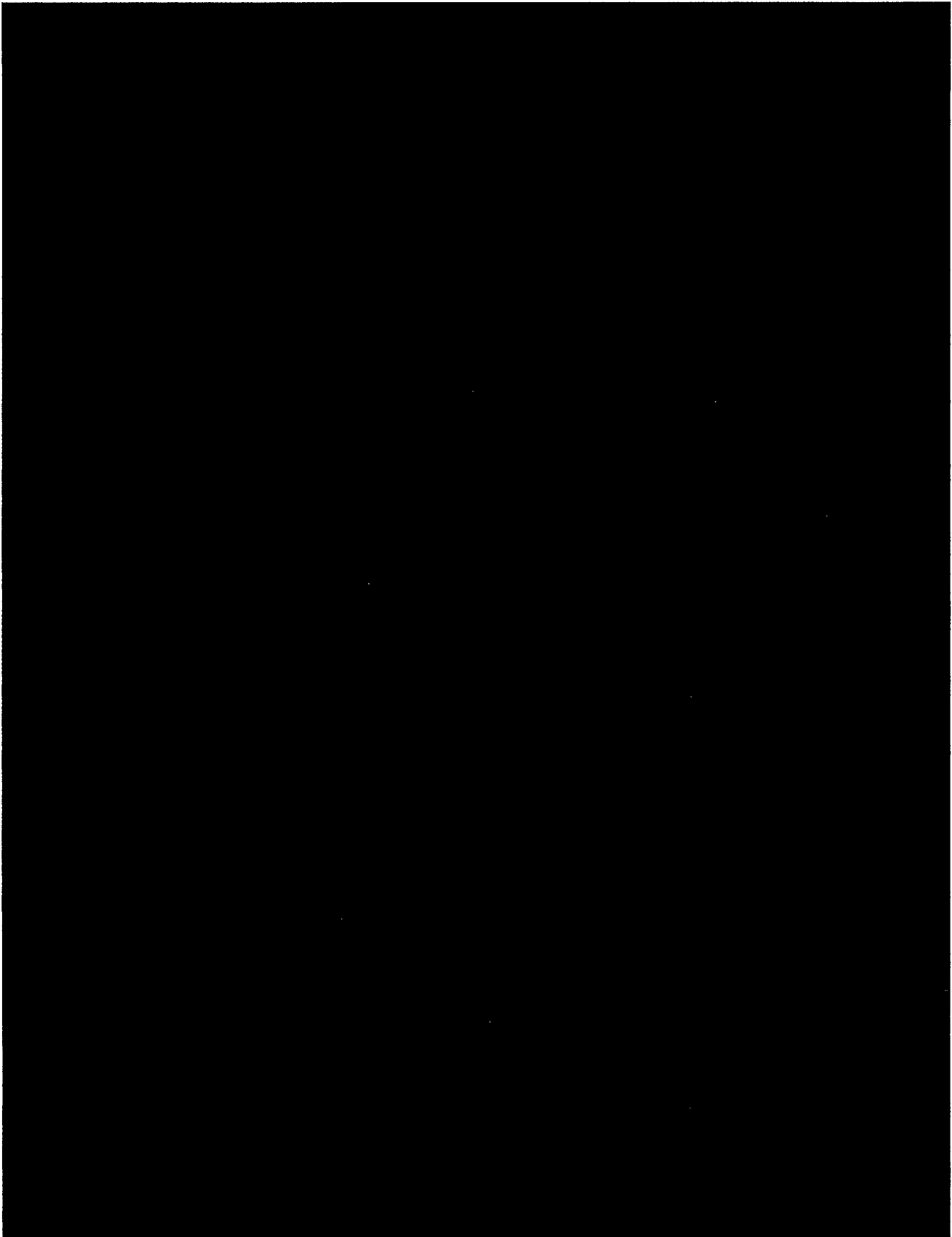
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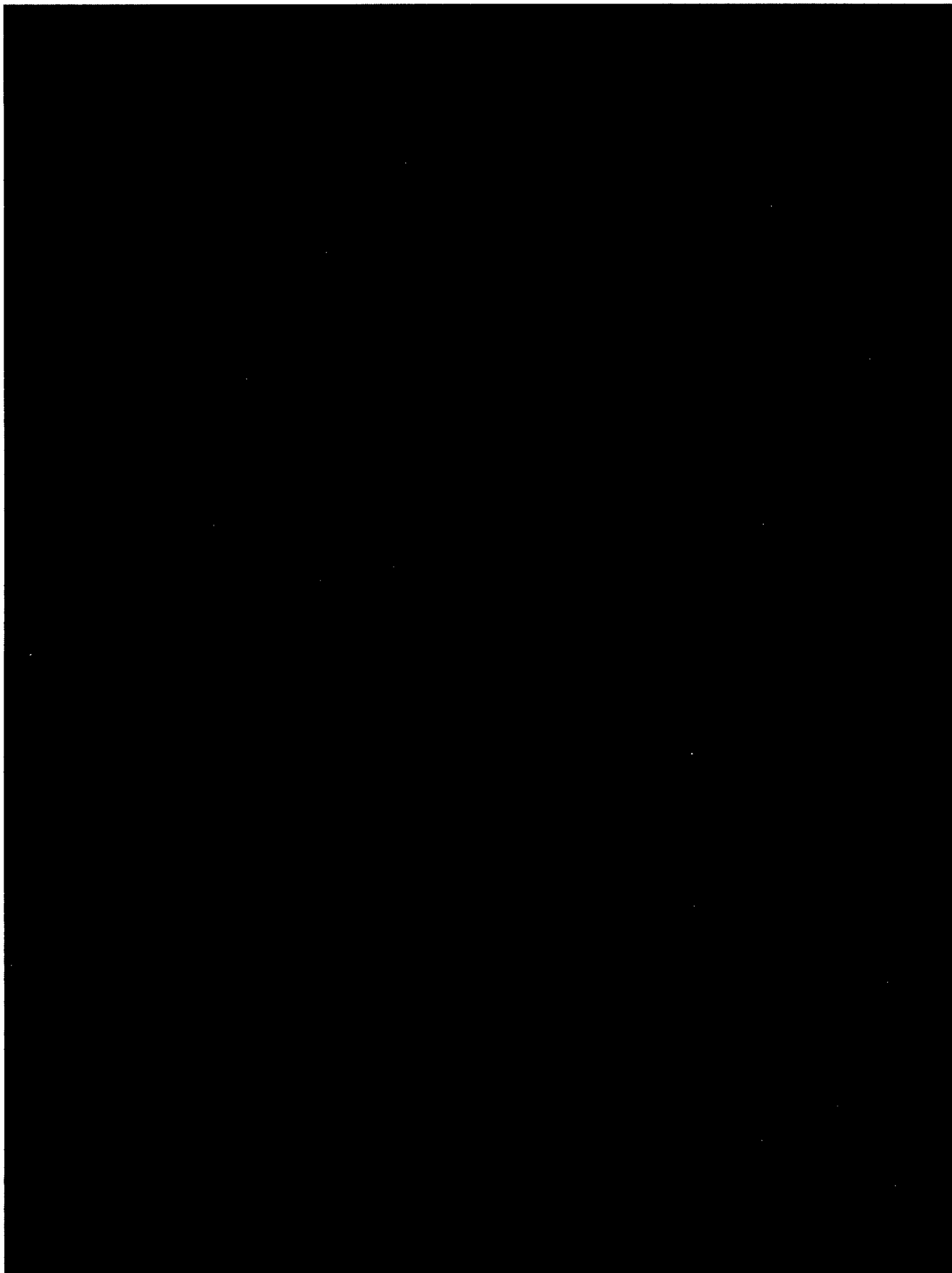
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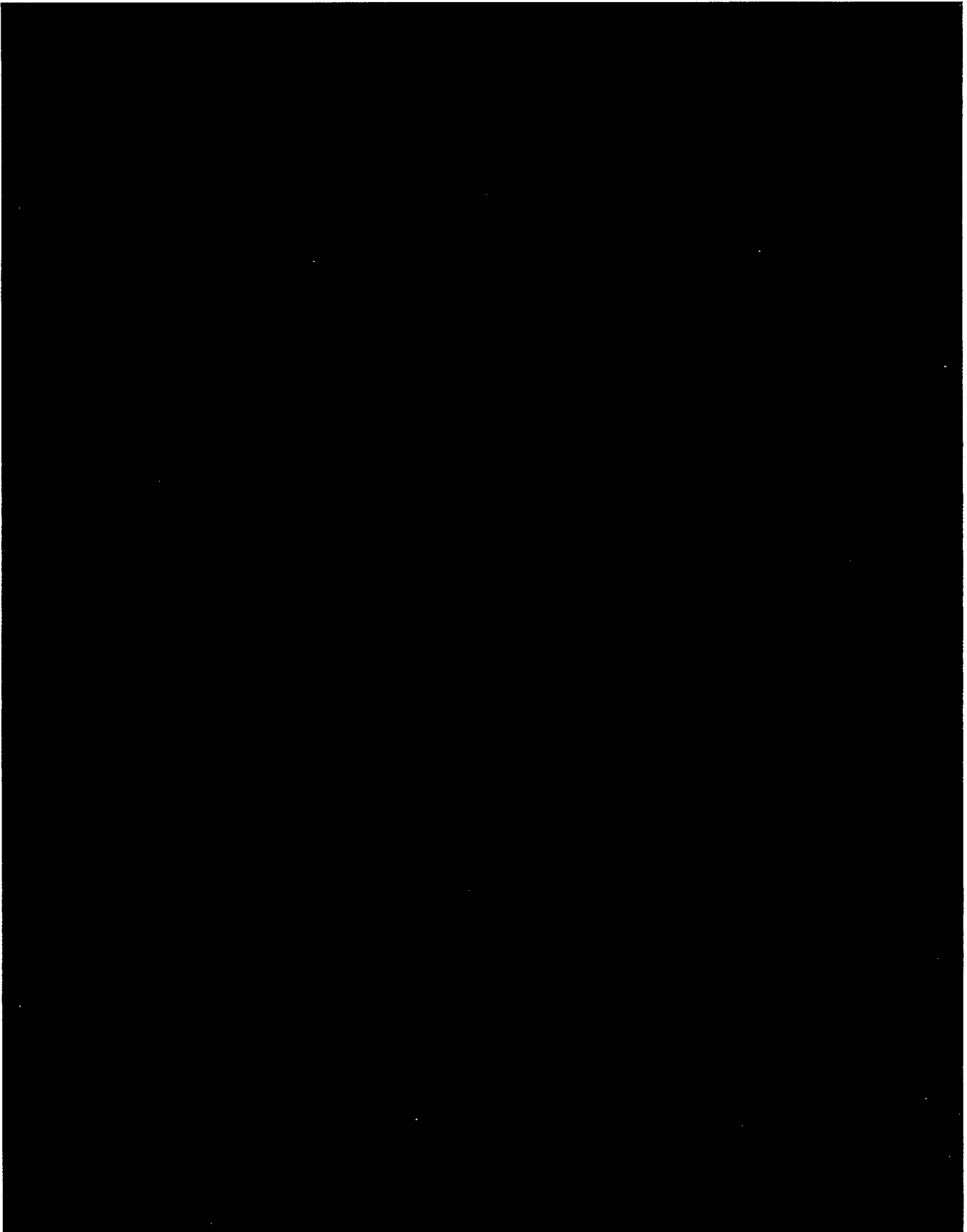
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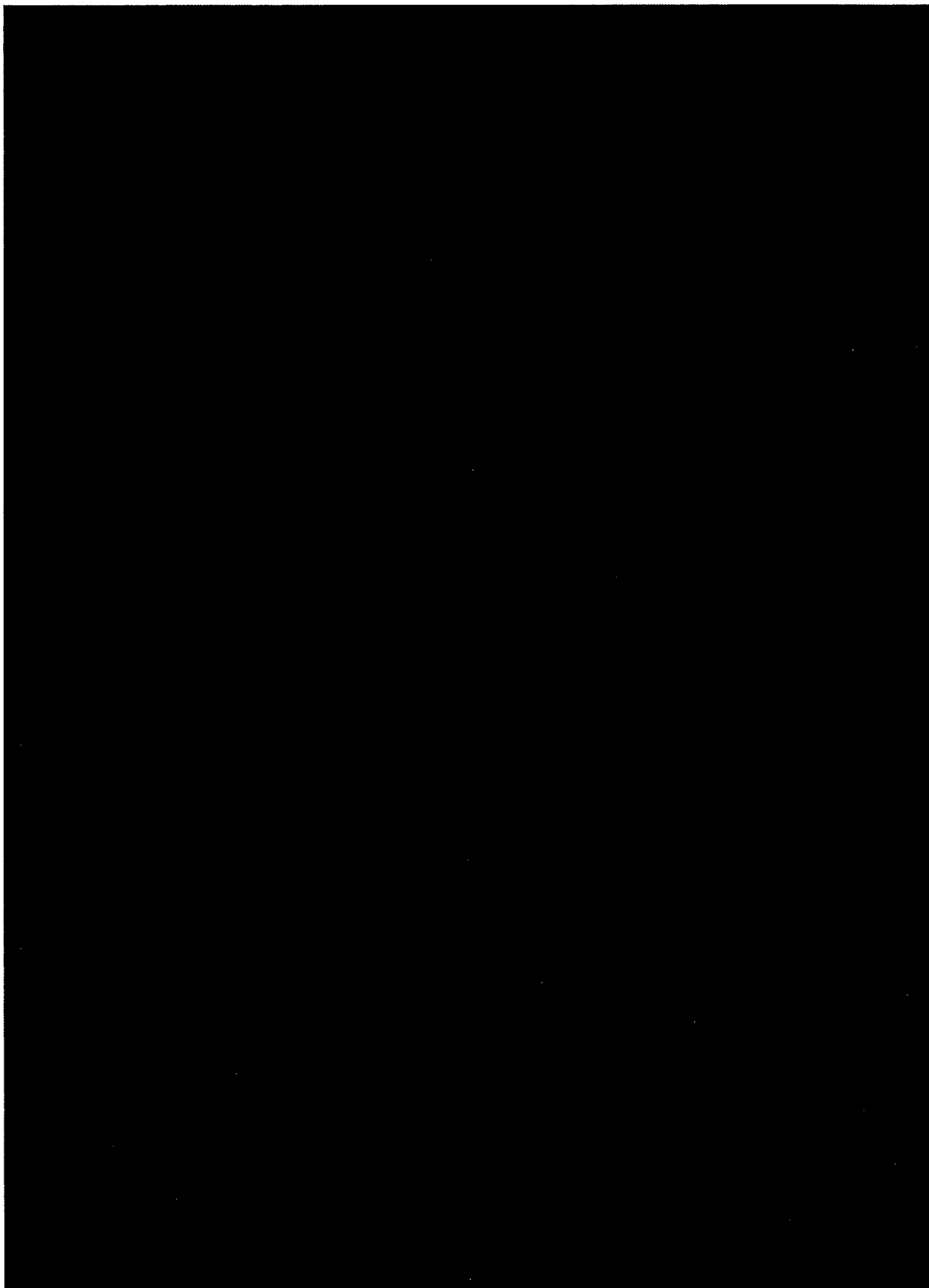
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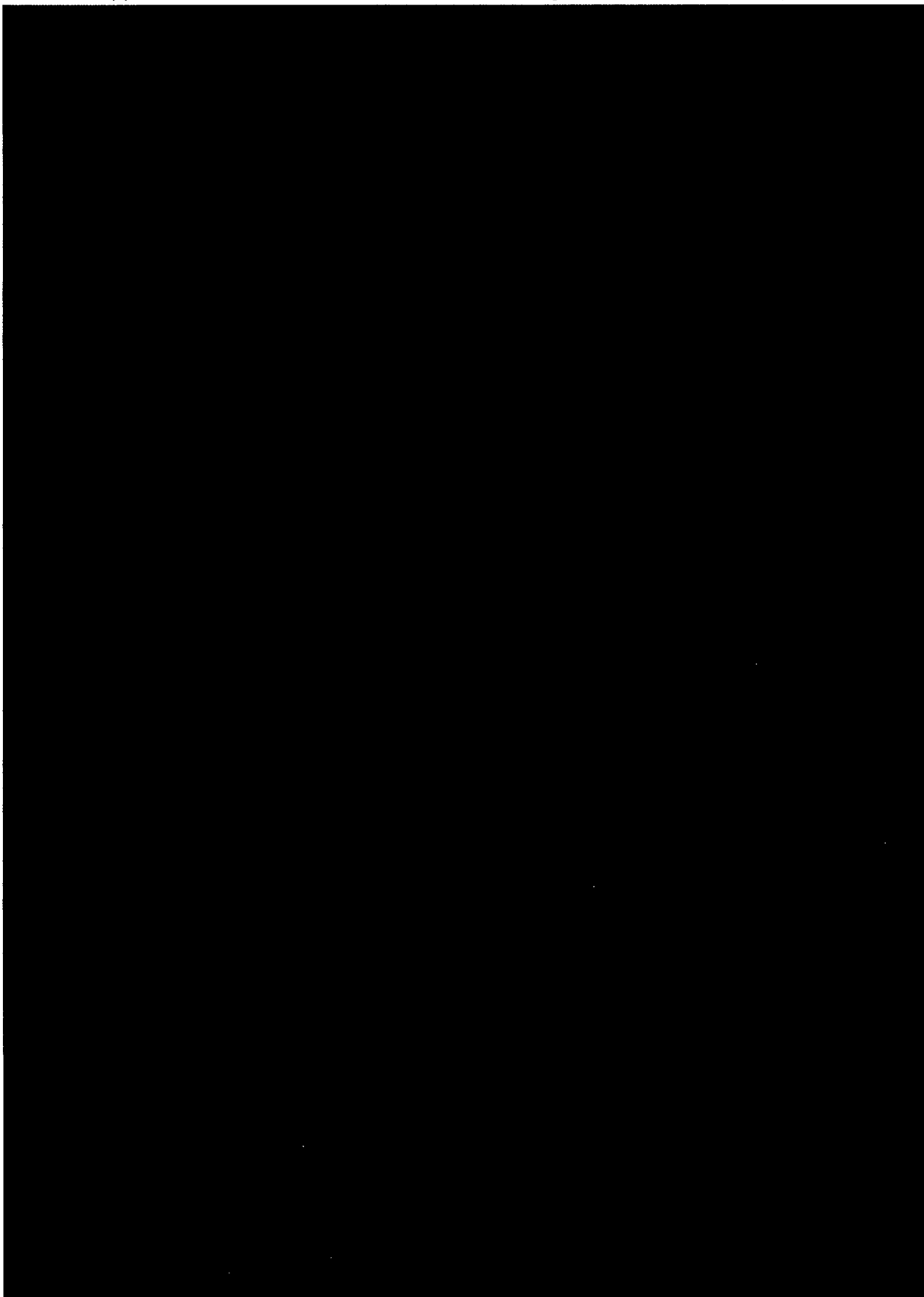


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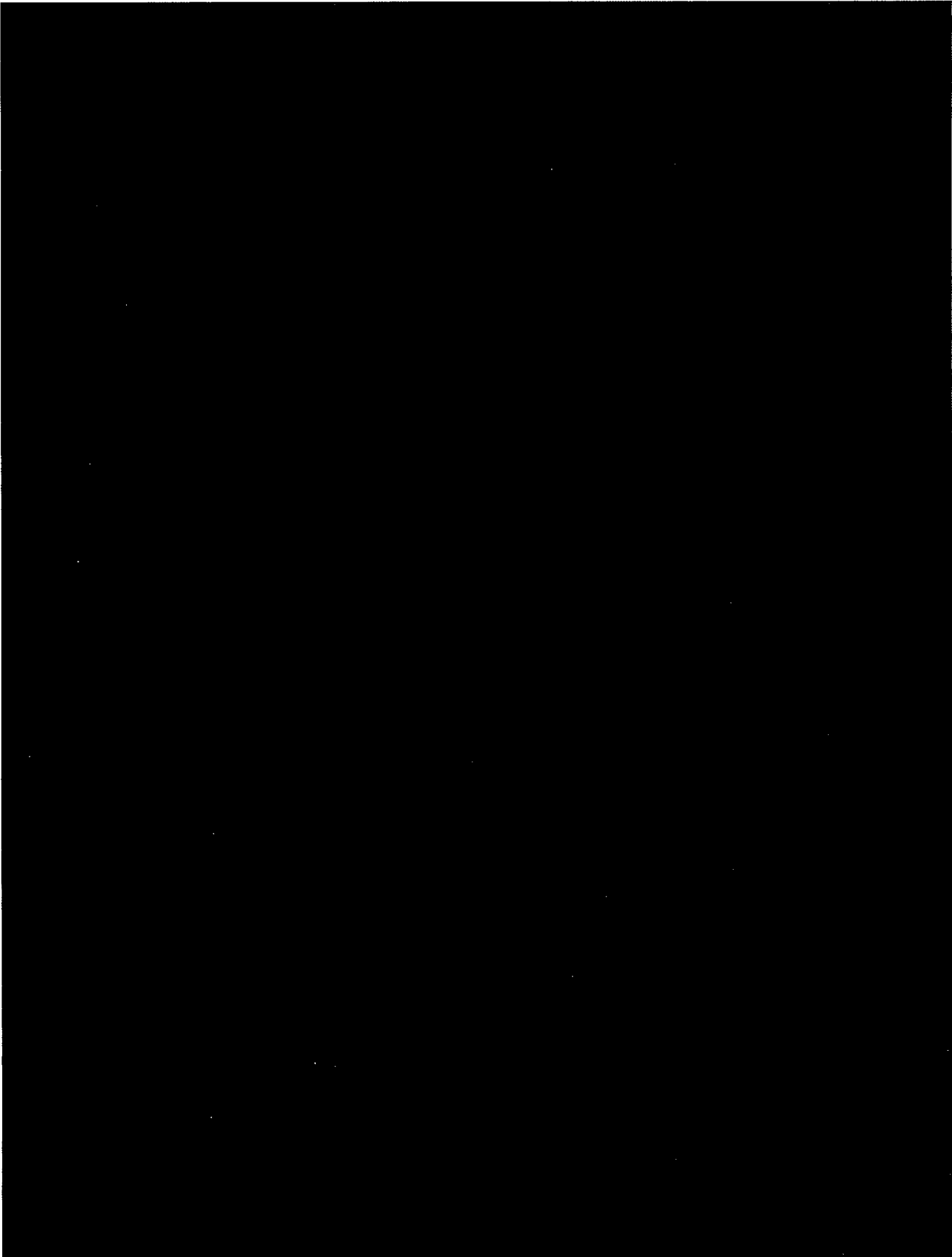




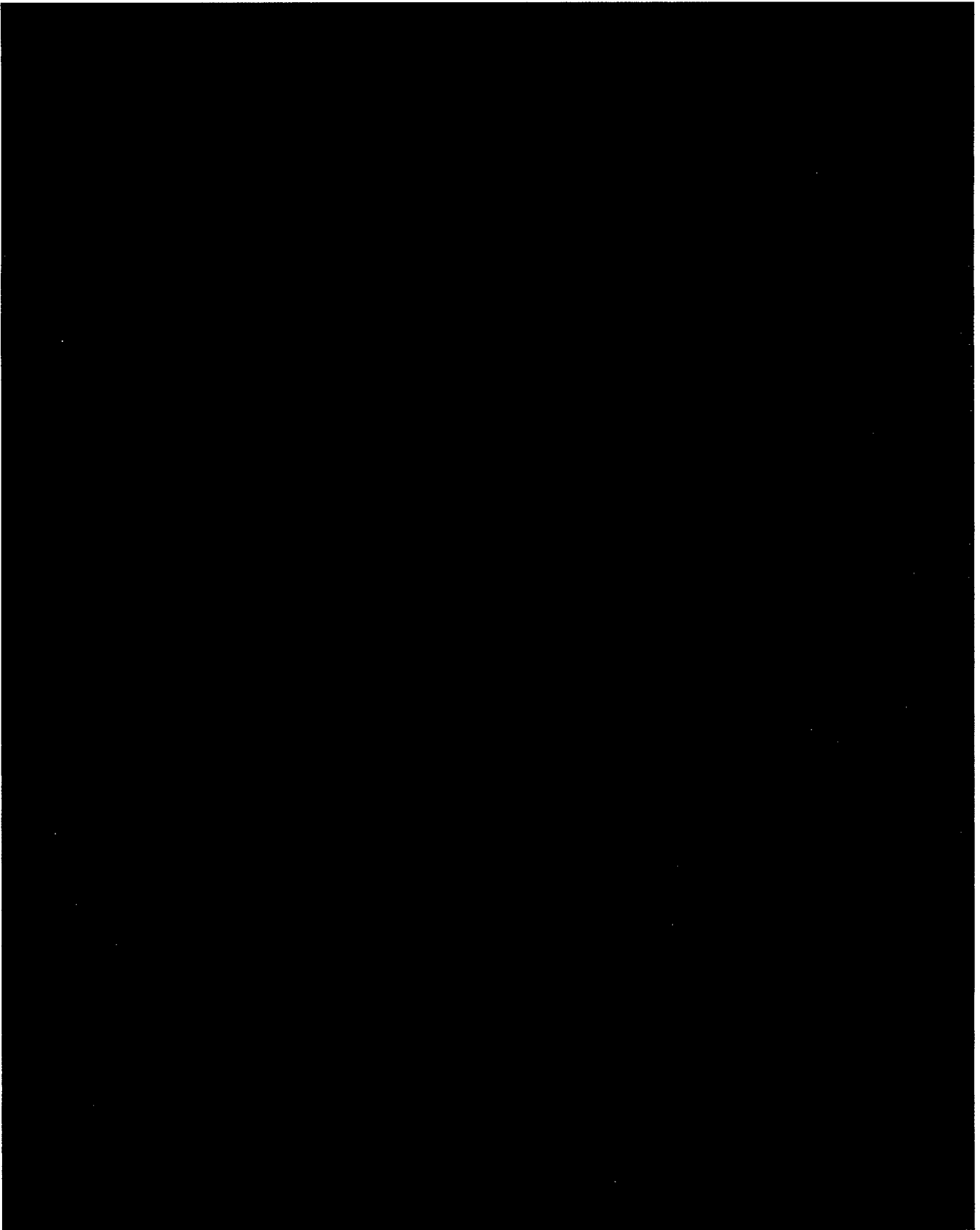
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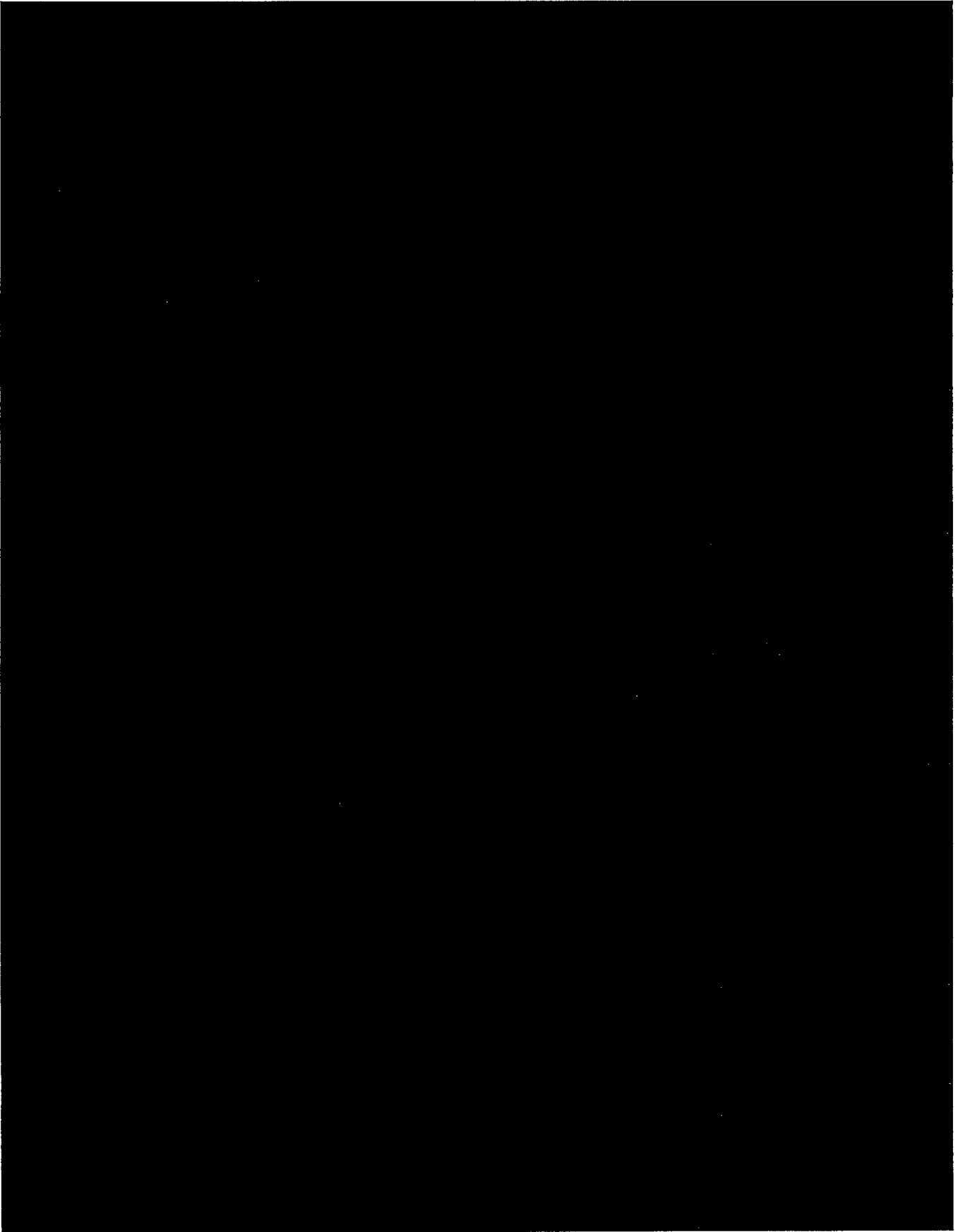
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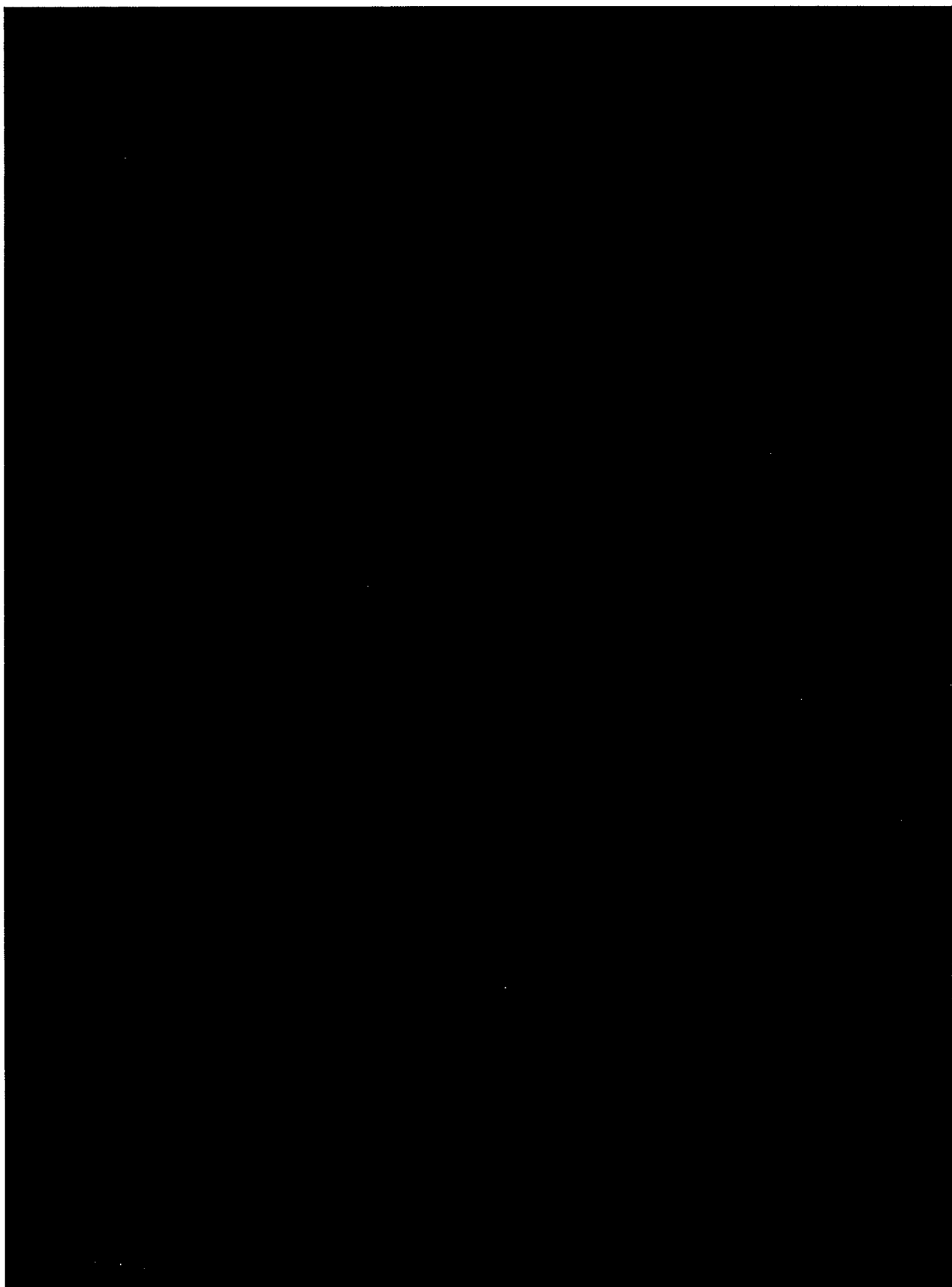
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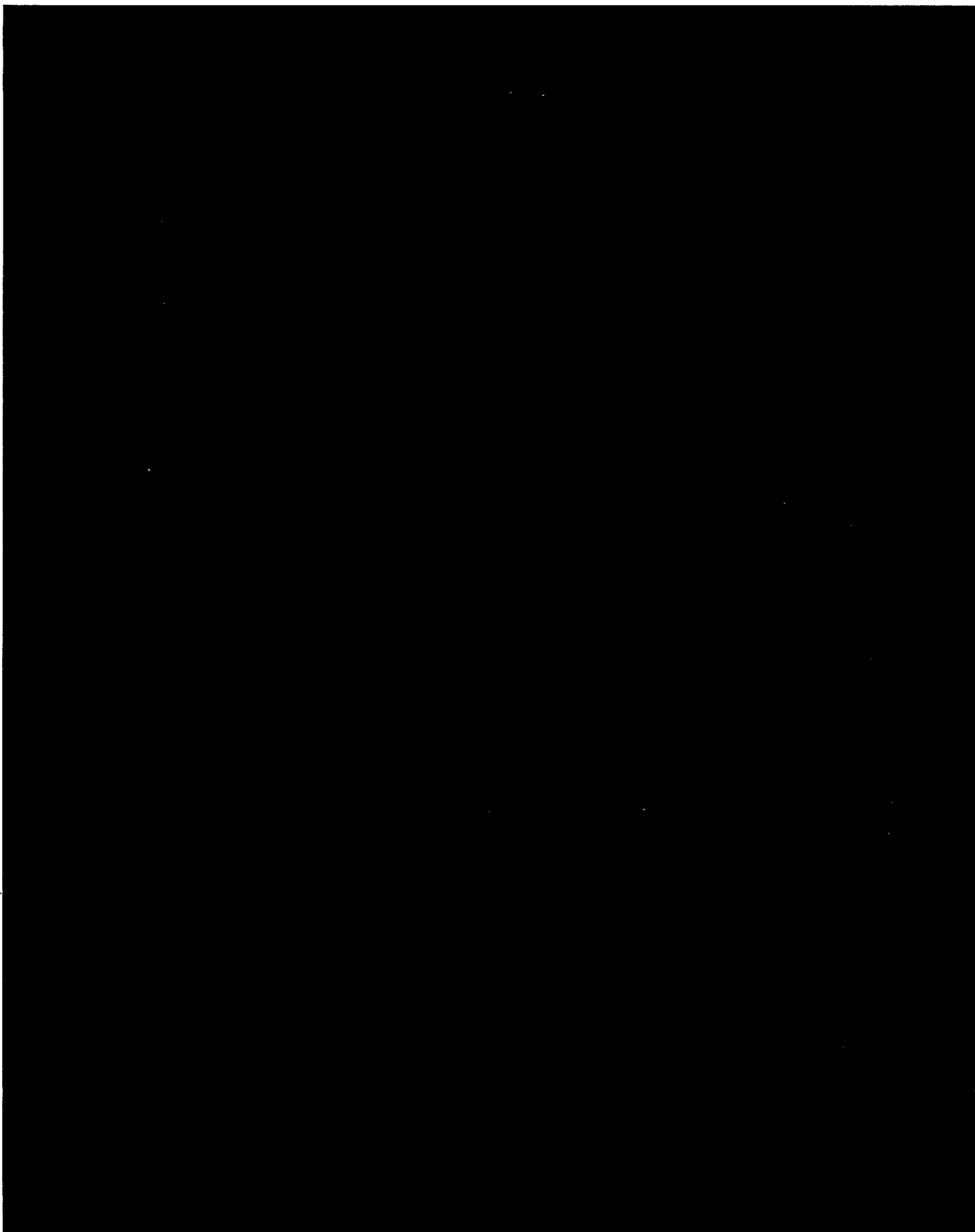
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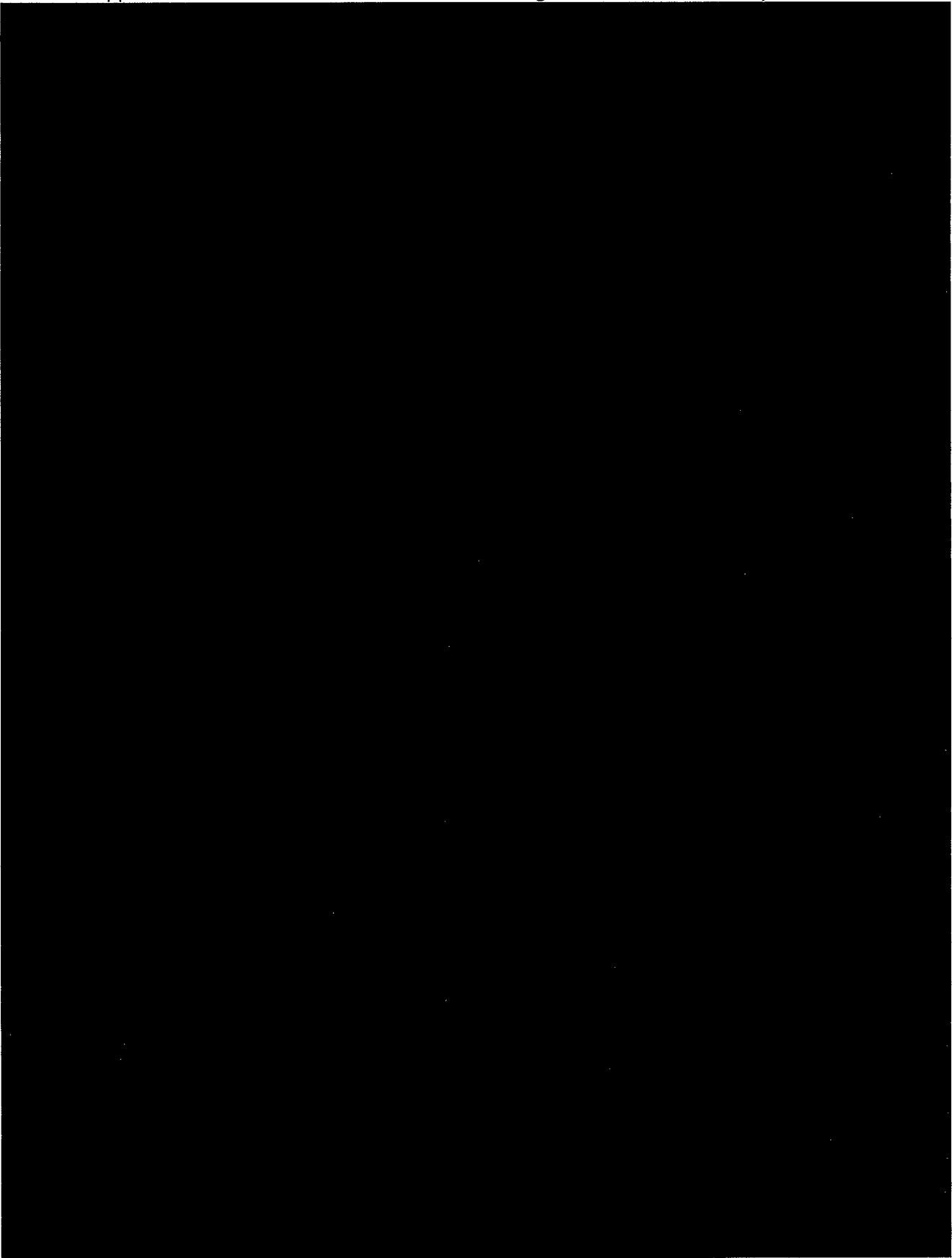


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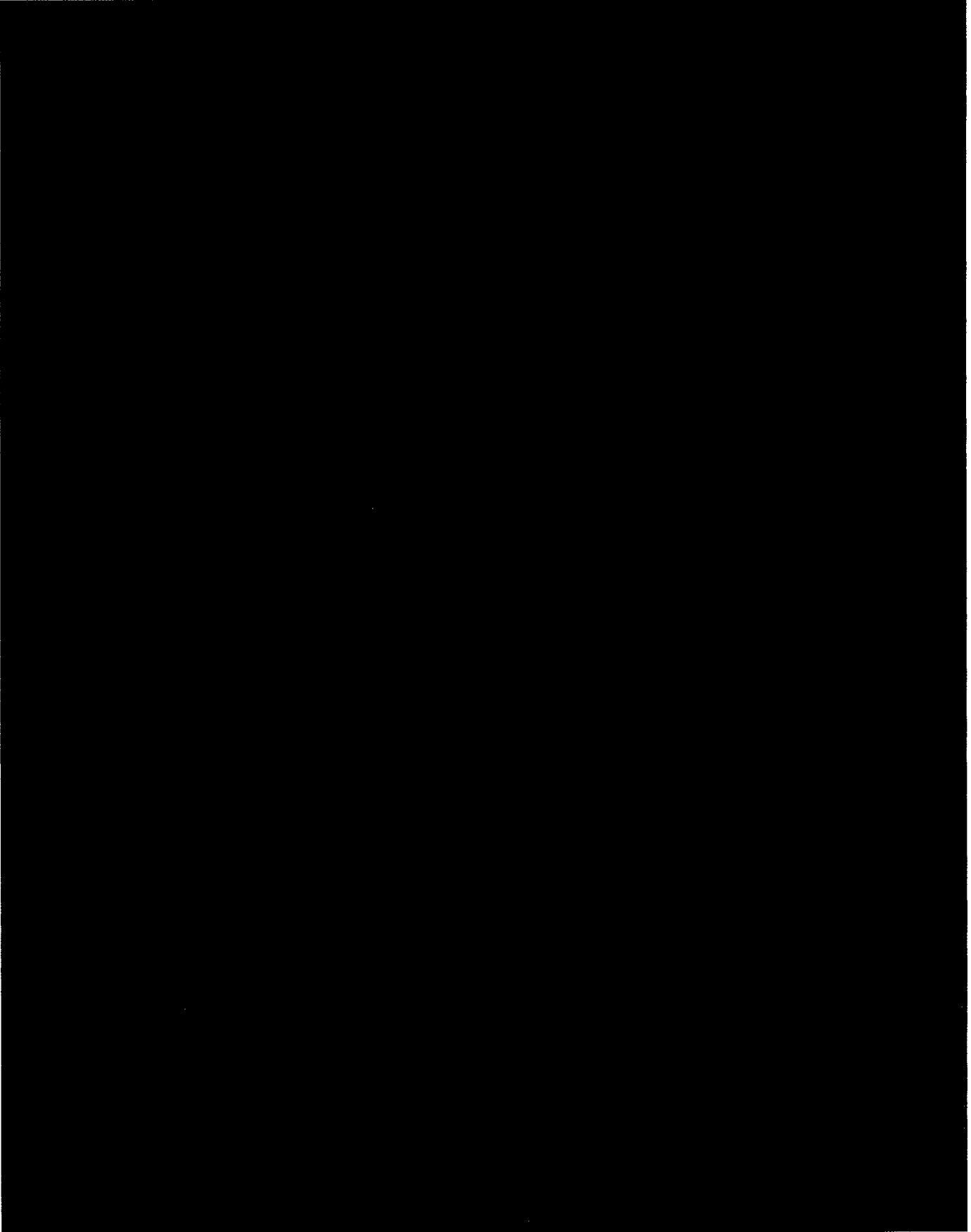




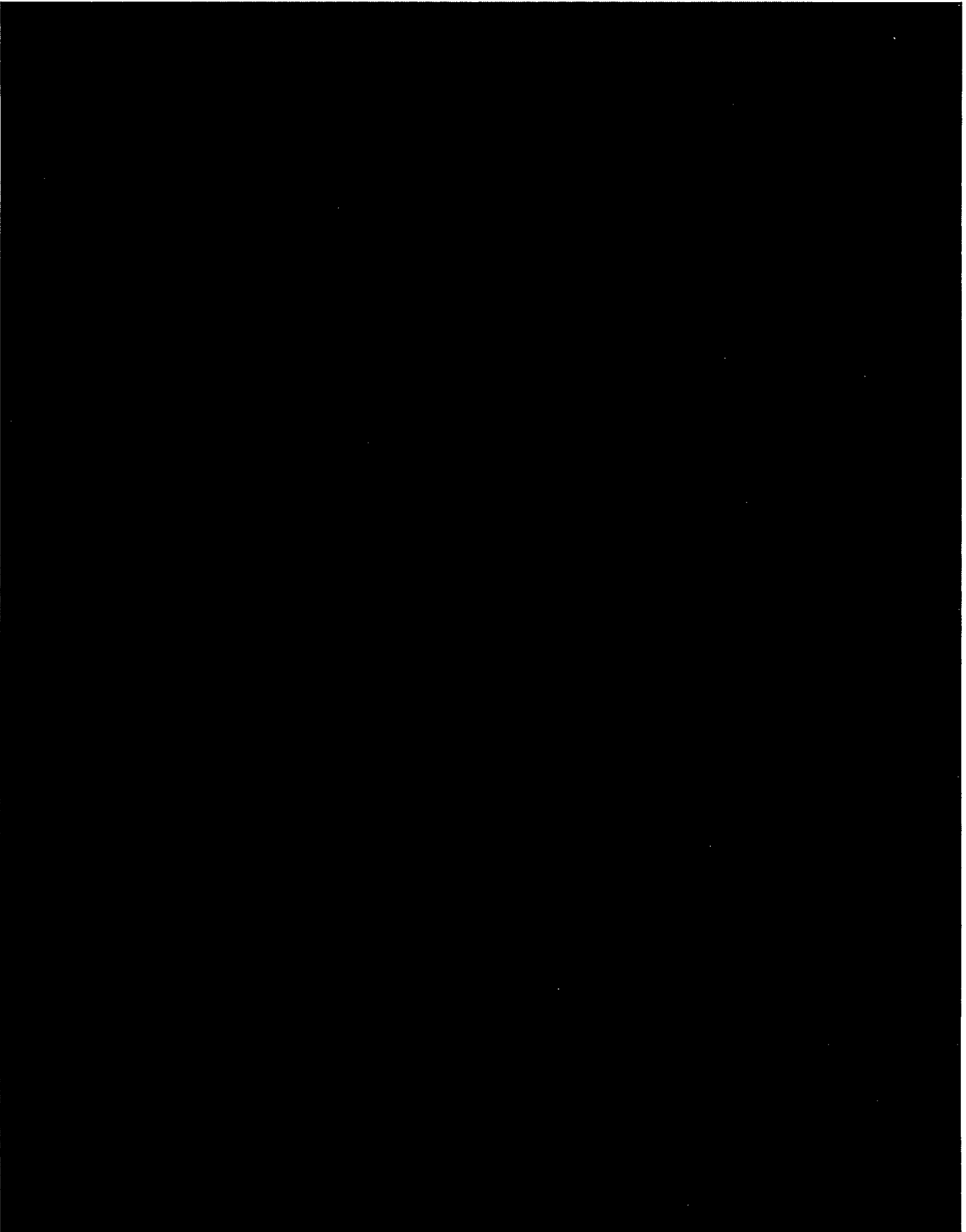
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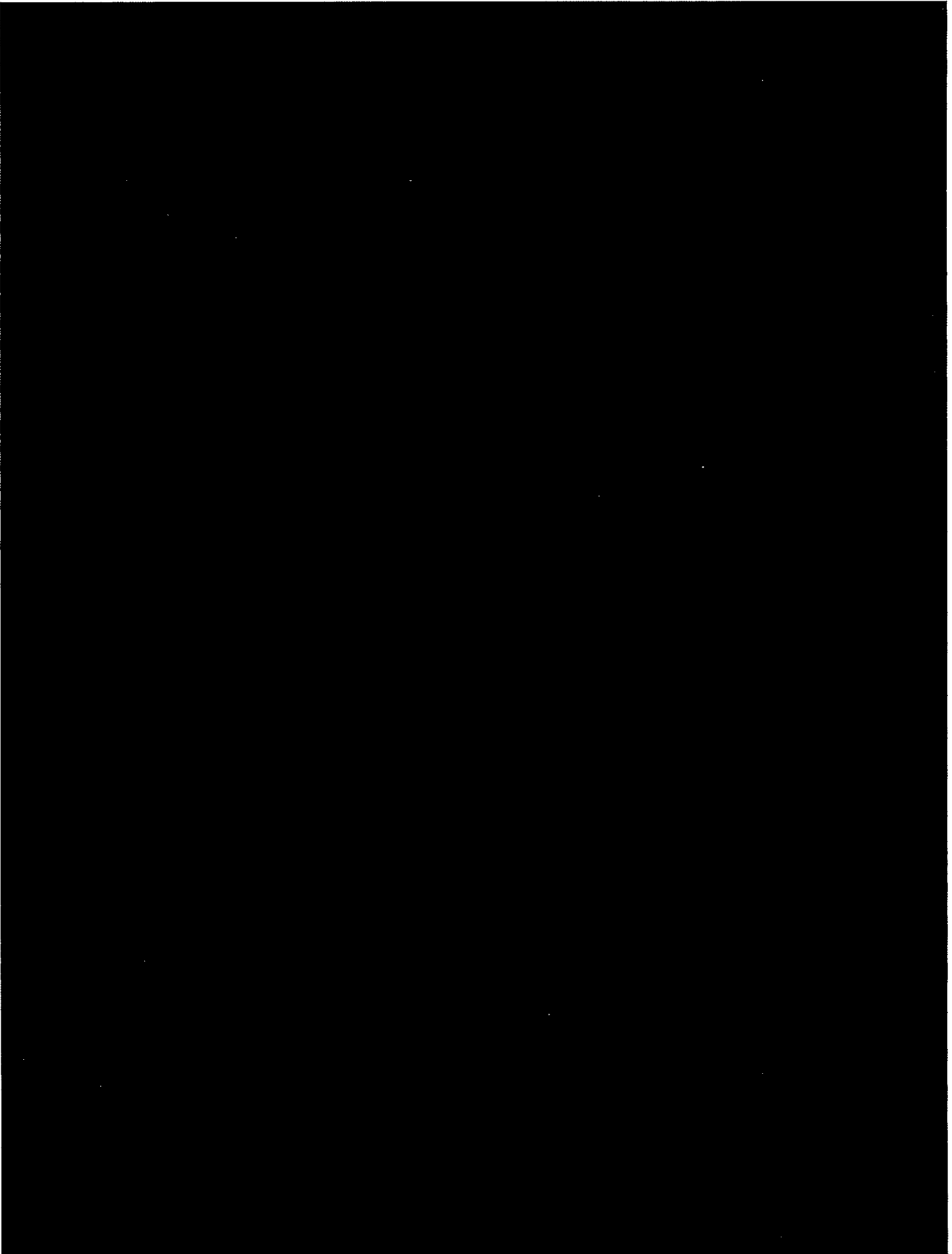
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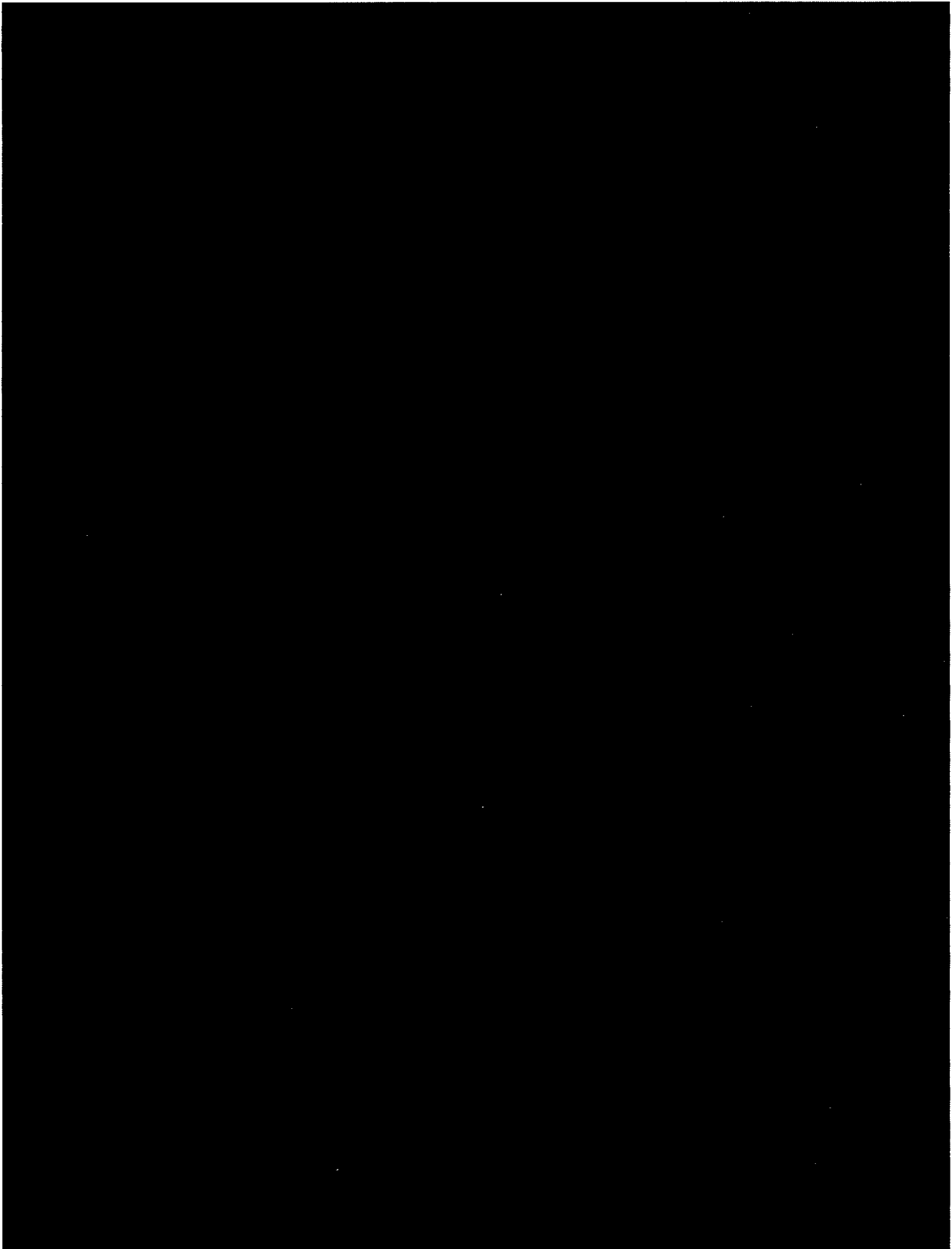
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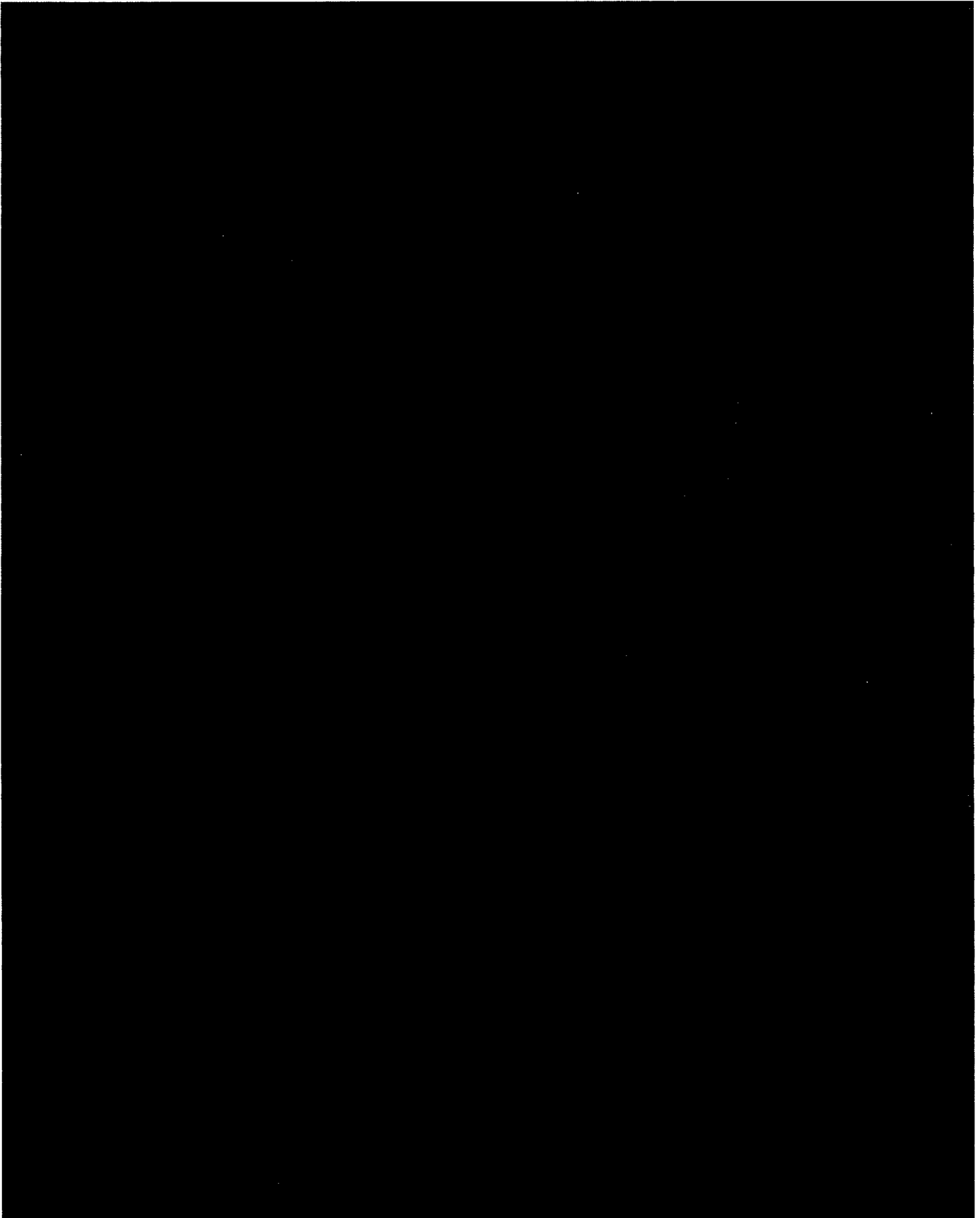
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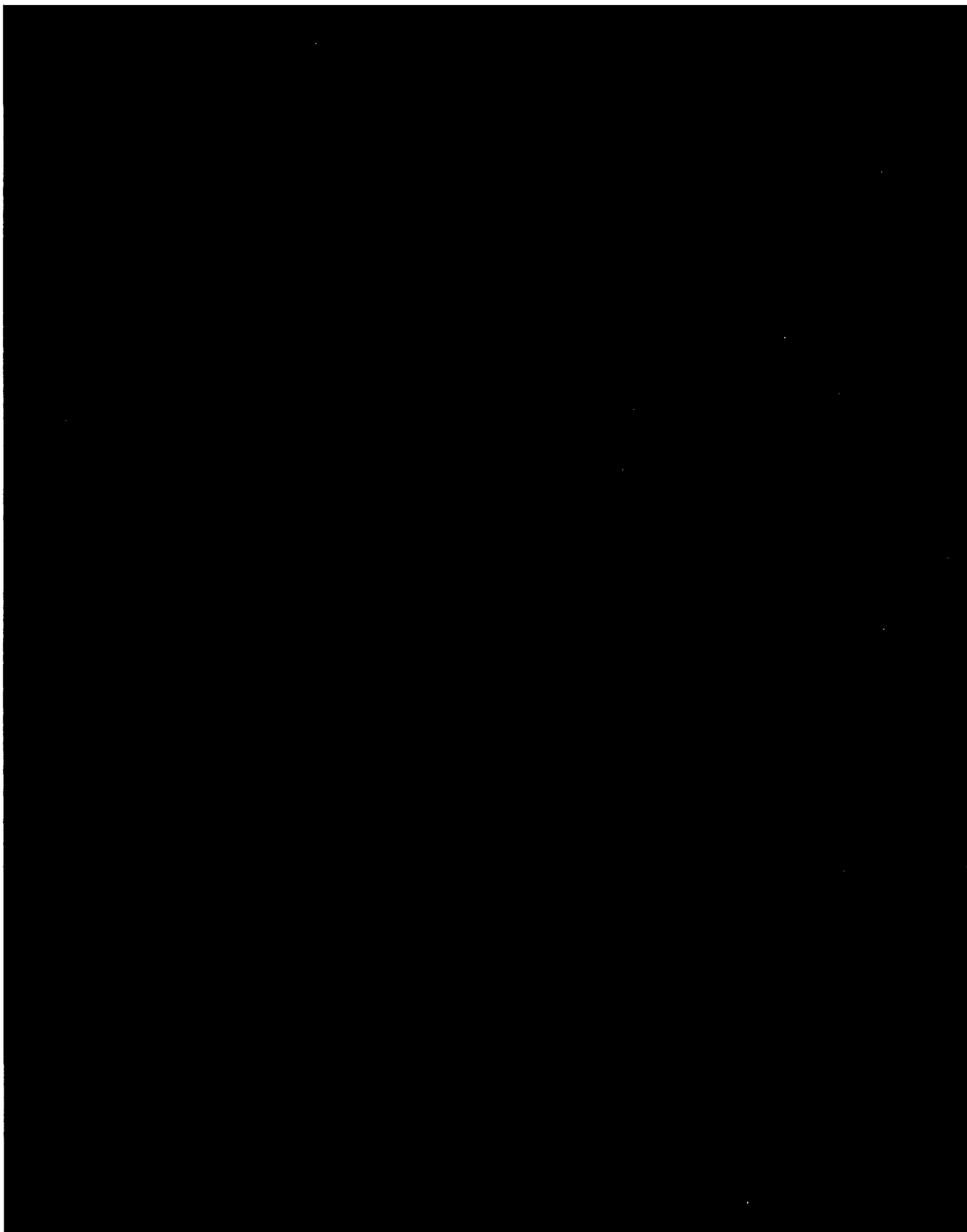
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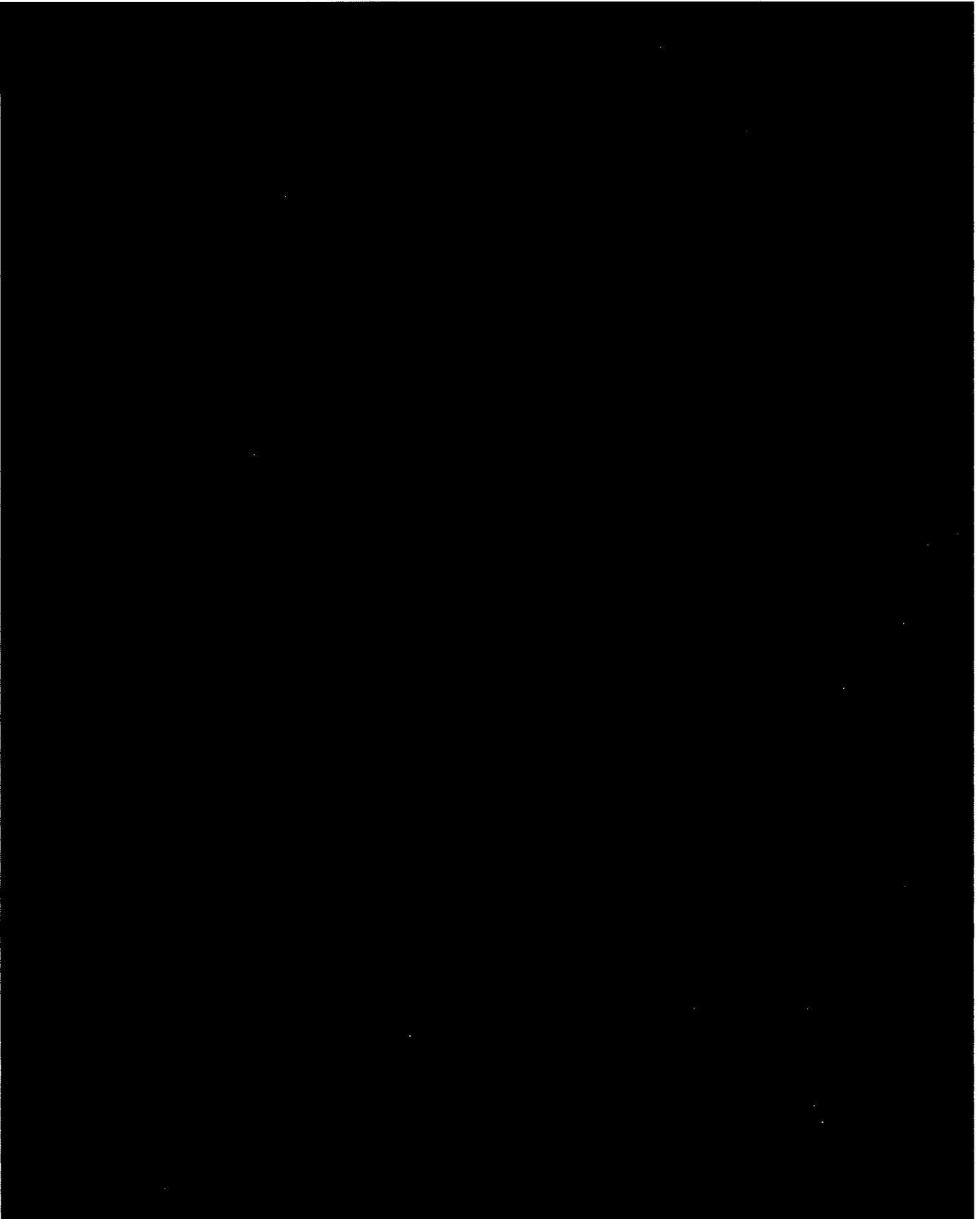
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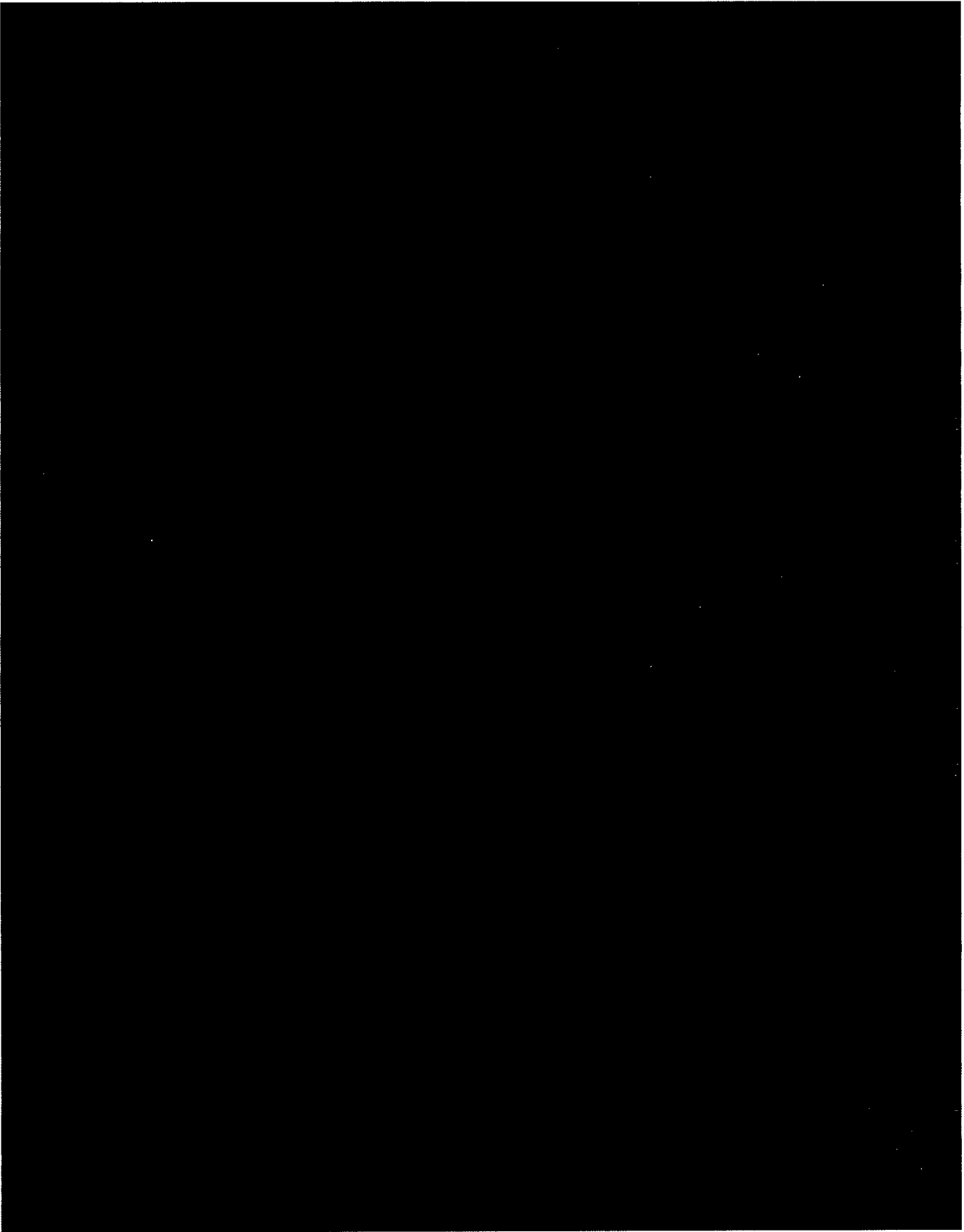


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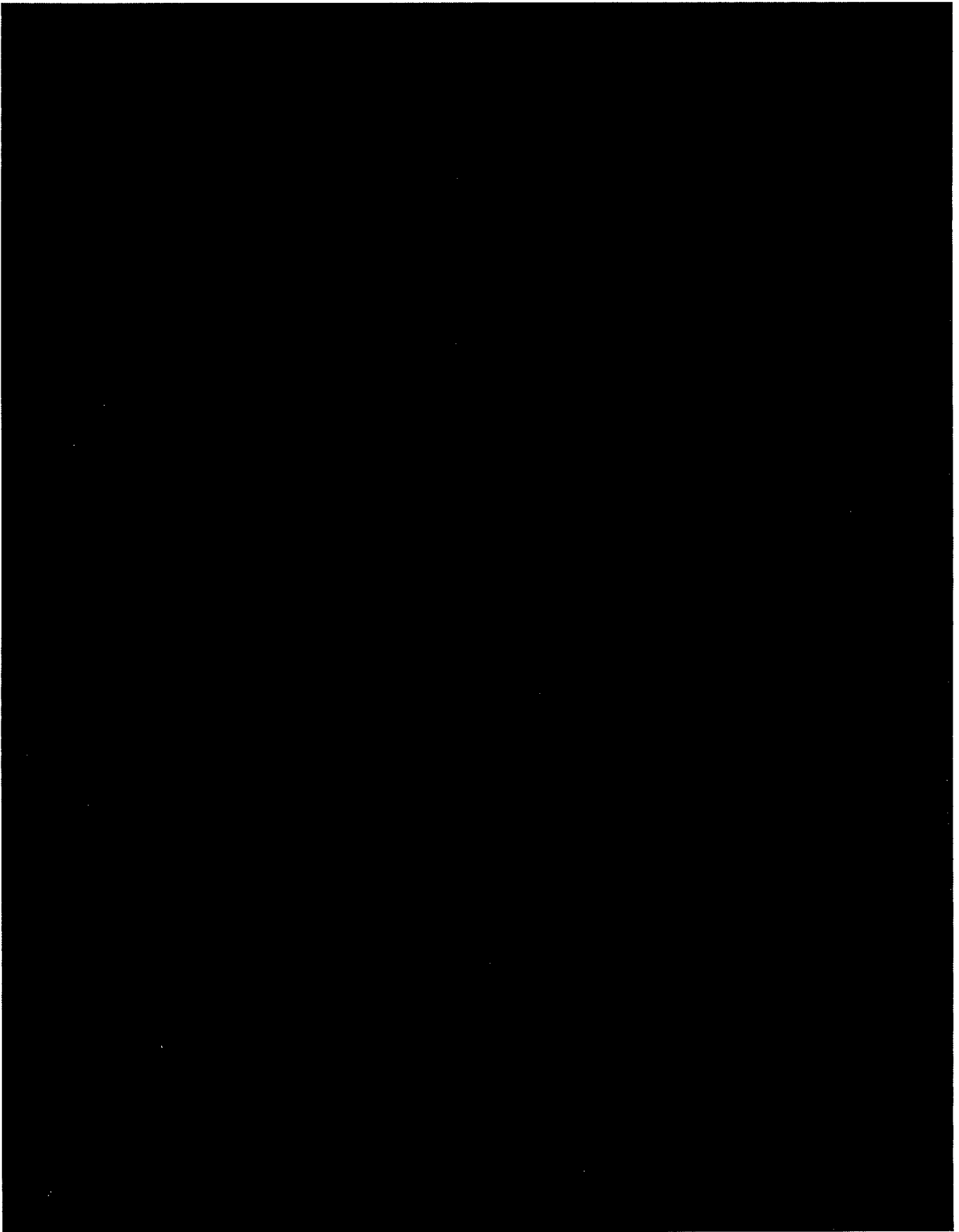




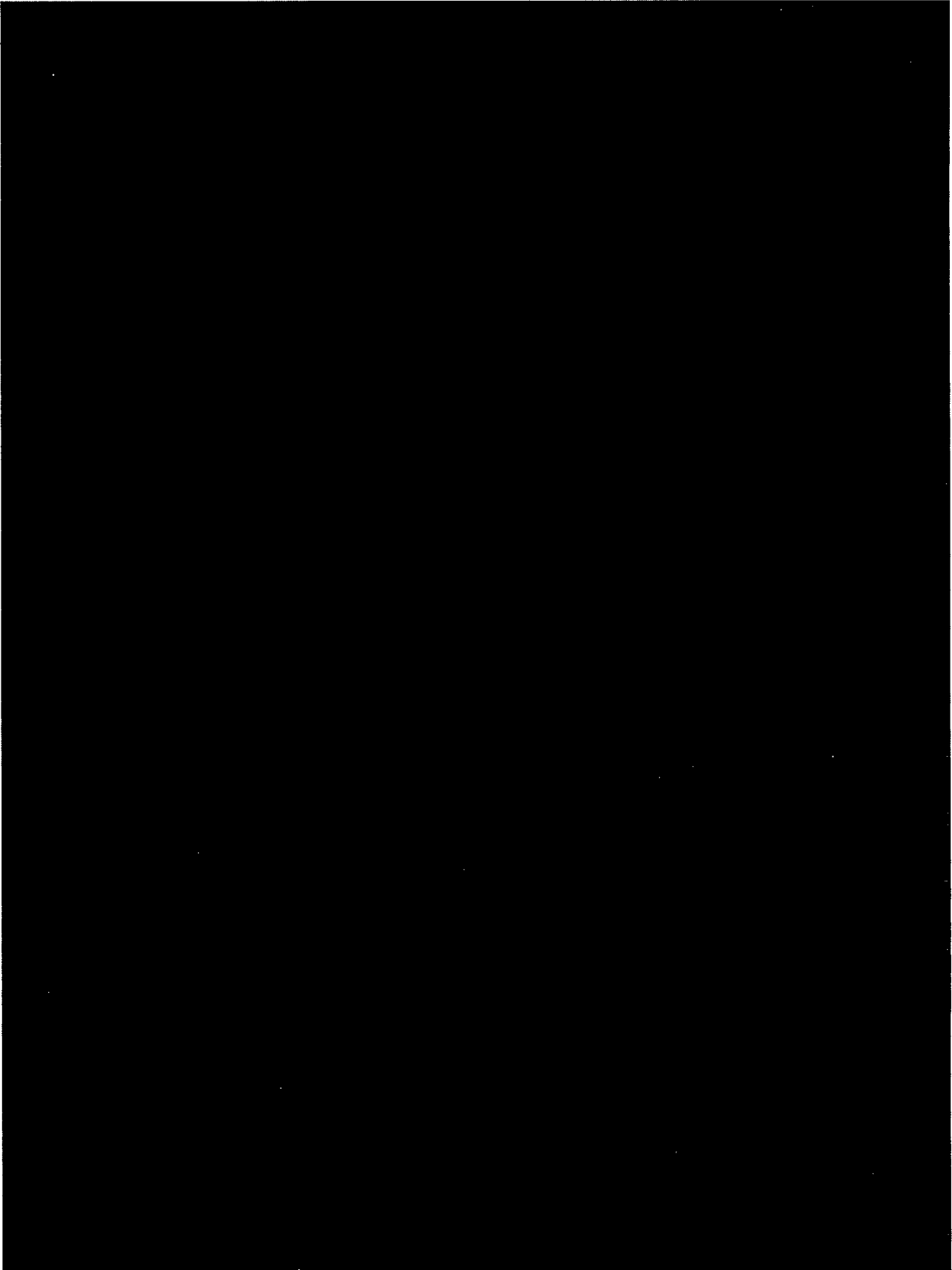
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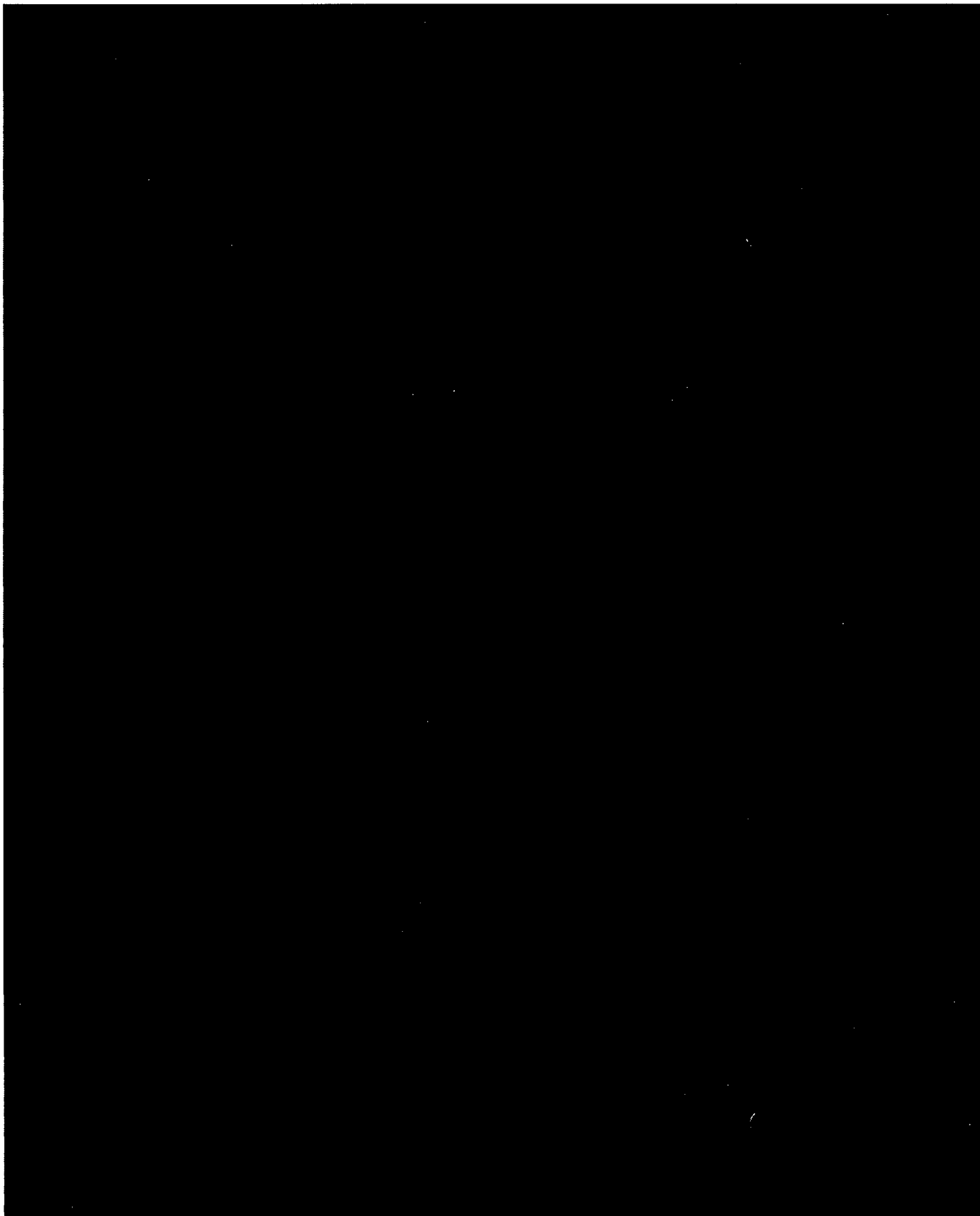
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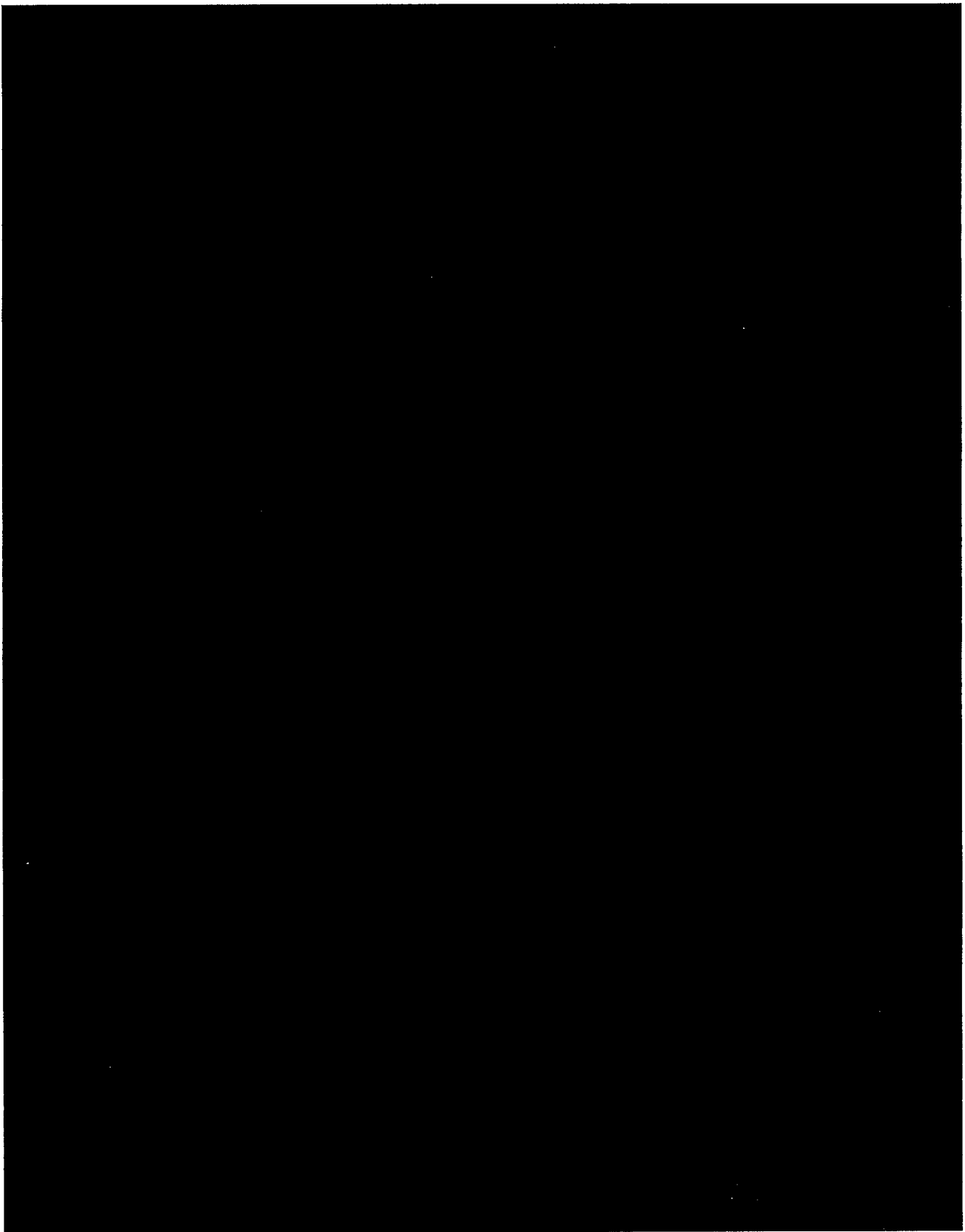
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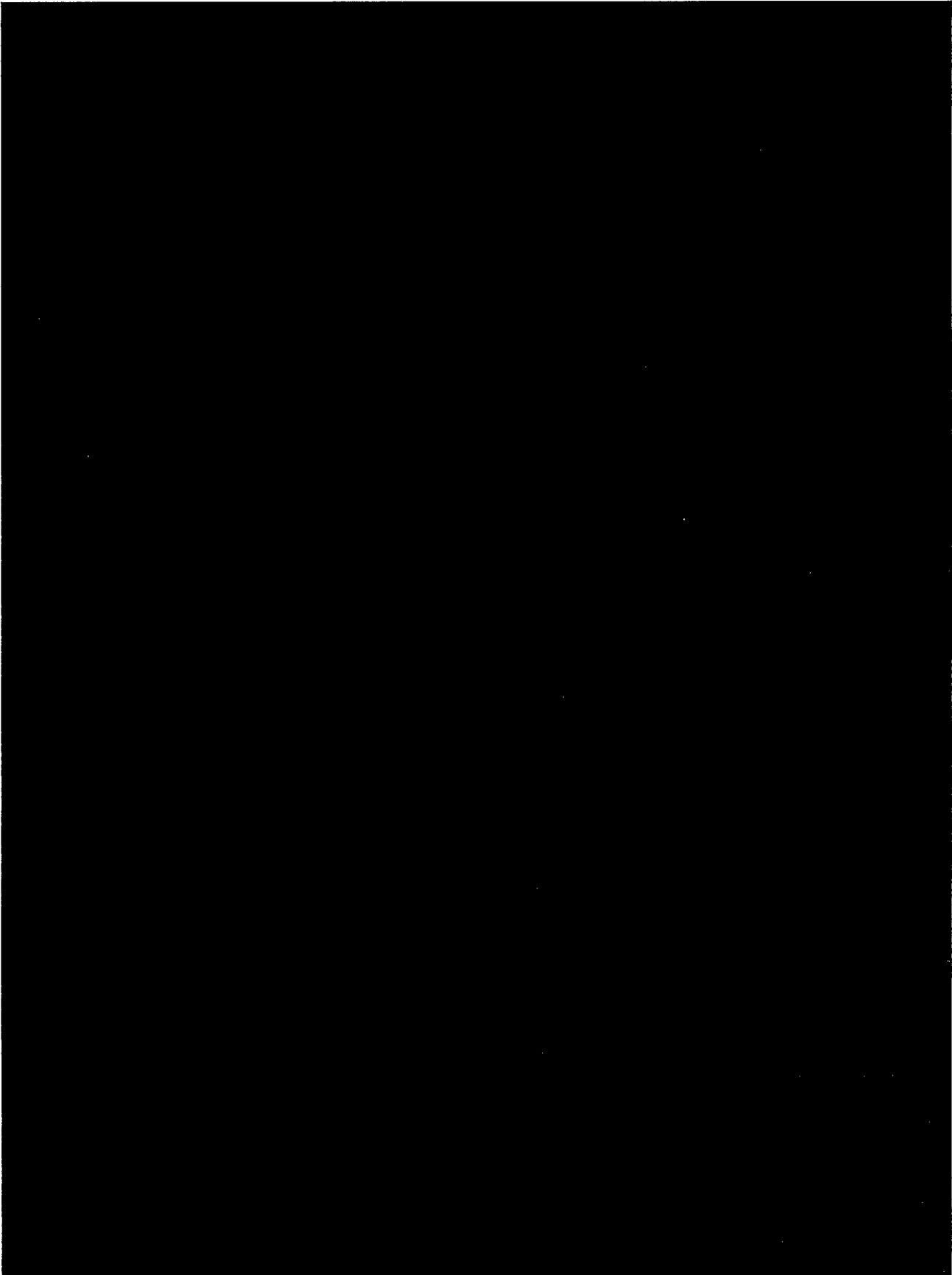
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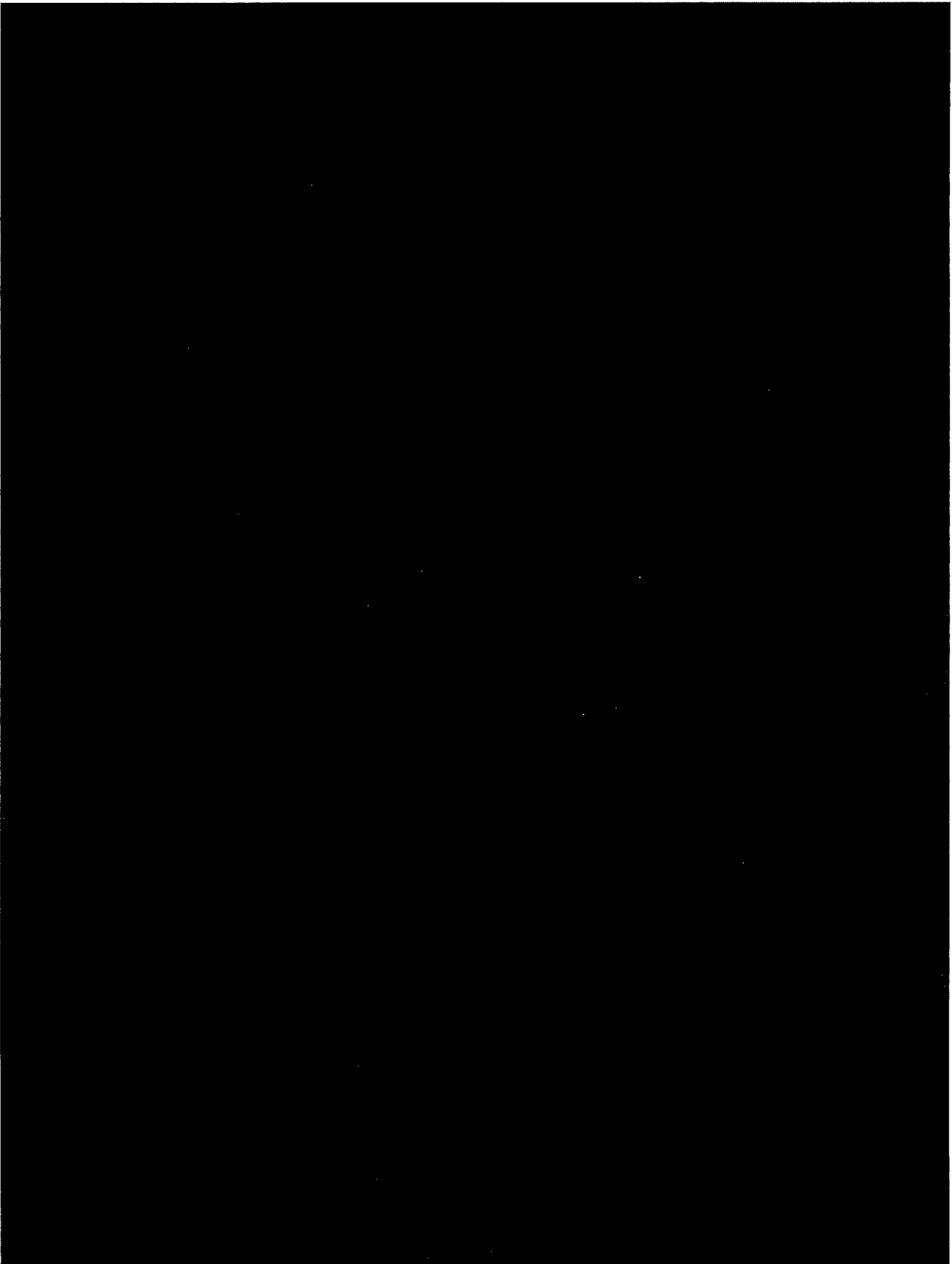
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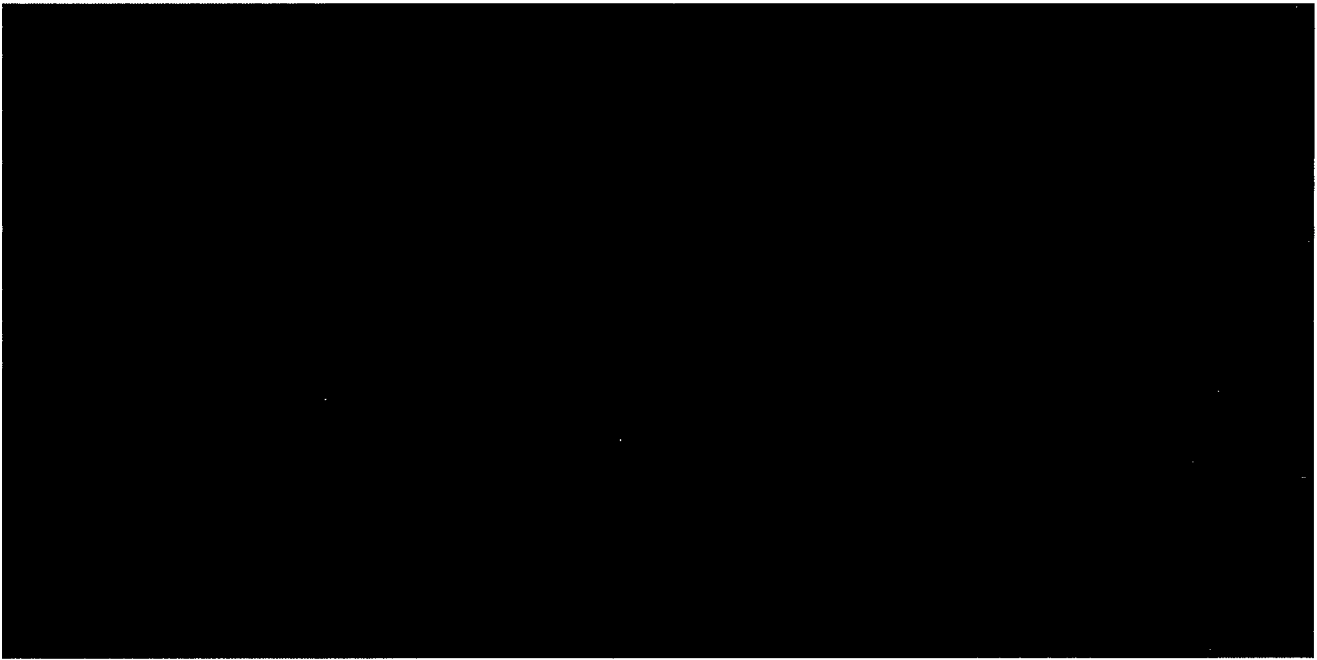
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## Appendix H: Gray Table 2

### Gray Predictions vs Gray Data

Category	Year	Total Viewing			Percent of Viewing		
		Gray Table 2 Totals of Distant Viewing from Gray Regression Predictions		Distant Viewing According to Lindstrom Data (Only Sample Stations with Lindstrom data)	Gray Table 2 Shares of Distant Viewing from Gray Regression Predictions		Distant Viewing According to Lindstrom Data (Only Sample Stations with Lindstrom data)
		All Sample Stations (Same as Table 2)	Only Sample Stations with Lindstrom data		All Sample Stations (Same as Table 2)	Only Sample Stations with Lindstrom data	
can	2010	22,577	9,162	13,610	1.96%	0.94%	1.85%
com	2010	181,958	154,681	200,288	15.83%	15.92%	27.16%
dev	2010	13,598	10,381	1,806	1.18%	1.07%	0.25%
ps	2010	585,521	467,672	288,844	50.94%	48.14%	39.18%
public	2010	321,335	308,085	222,151	27.96%	31.71%	30.13%
sports	2010	24,466	21,441	10,607	2.13%	2.21%	1.44%
		<b>1,149,455</b>	<b>971,422</b>	<b>737,307</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
can	2011	39,472	9,637	11,560	3.93%	1.14%	2.01%
com	2011	121,186	98,428	79,286	12.06%	11.68%	13.81%
dev	2011	24,497	19,214	2,542	2.44%	2.28%	0.44%
ps	2011	501,580	417,924	242,735	49.92%	49.60%	42.28%
public	2011	292,267	276,981	220,239	29.09%	32.87%	38.37%
sports	2011	25,803	20,411	17,697	2.57%	2.42%	3.08%
		<b>1,004,804</b>	<b>842,594</b>	<b>574,059</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
can	2012	37,007	13,289	10,634	3.58%	1.52%	1.66%
com	2012	159,938	107,645	127,226	15.48%	12.33%	19.87%
dev	2012	11,032	10,940	1,088	1.07%	1.25%	0.17%
ps	2012	373,313	329,210	176,854	36.14%	37.71%	27.62%
public	2012	430,093	391,148	309,541	41.64%	44.80%	48.33%
sports	2012	21,596	20,856	15,077	2.09%	2.39%	2.35%
		<b>1,032,980</b>	<b>873,088</b>	<b>640,419</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
can	2013	38,340	11,014	10,611	5.16%	1.83%	1.88%
com	2013	78,754	63,413	82,545	10.61%	10.54%	14.59%
dev	2013	8,160	6,595	4,565	1.10%	1.10%	0.81%
ps	2013	334,733	263,661	266,799	45.09%	43.81%	47.15%
public	2013	247,143	223,391	181,818	33.29%	37.12%	32.13%
sports	2013	35,303	33,718	19,528	4.76%	5.60%	3.45%
		<b>742,435</b>	<b>601,792</b>	<b>565,866</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
can	all	137,396	43,101	46,416	3.5%	1.3%	1.8%
com	all	541,836	424,168	489,345	13.8%	12.9%	19.4%
dev	all	57,286	47,130	10,002	1.5%	1.4%	0.4%
ps	all	1,795,148	1,478,467	975,231	45.7%	45.0%	38.7%
public	all	1,290,838	1,199,604	933,749	32.8%	36.5%	37.1%
sports	all	107,169	96,425	62,909	2.7%	2.9%	2.5%
		<b>3,929,673</b>	<b>3,288,895</b>	<b>2,517,651</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>



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Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.

*In re*

DISTRIBUTION OF CABLE  
ROYALTY FUNDS

NO. 14-CRB-0010-CD (2010-13)

Written Rebuttal Testimony of

Susan Nathan

September 15, 2017

Corrected October 5, 2017

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**I. Qualifications:**

I have over thirty years of experience with media research, including service as Senior Vice President, Affiliate Research, Media Currency & Research Operations at Turner Broadcasting (2009-14); Vice President, Media Currency, at Turner Broadcasting (2007-09); Senior Vice President, Director of Media Knowledge at Universal McCann (1991-2007); Senior Vice President, Director of Media Research, at Laurence, Charles, Free & Lawson; and Vice President, and Director of Media Research, Needham, Harper Worldwide. As a senior media researcher, I have been responsible for being an expert on all issues regarding measurement of audiences across all media. My primary area of expertise is television research, including the collection and use of television audience data.

I have worked with The Nielsen Company (Nielsen) throughout my career. My first job in the industry was at Nielsen, where I learned the importance of sophisticated sampling procedures, which are critical for a rating service whose business depends on accuracy and reliability. As a client of Nielsen, I was heavily involved on behalf of my employers and our respective clients in all methodology issues involving national and local television measurement. In my role as a research director at the agencies and at Turner, I was responsible for training other employees concerning Nielsen data and how to ensure the proper use of that data.

I am a long-standing member of the Media Ratings Council (MRC), having first joined the non-profit organization in 1990 as one of the original agency representatives. The MRC (formerly the Broadcast Ratings Council) is a government-sanctioned group that audits and accredits research services for the media industry.<sup>1</sup> Its membership consists of top researchers across the industry including broadcast networks, local stations, advertisers, agencies, cable networks, media companies and industry associations. Nielsen's national and local audience

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<sup>1</sup> See <http://mediaratingcouncil.org/>.

measurement services are among the many research services that undergo extensive audits conducted by independent auditors and evaluated by MRC committee members who subsequently vote on accreditation of such services. I was an active member of the MRC, having served on the TV, Print, Out-of-Home and Digital Committees as well as on the Board of Directors. I also served one term as Chair of the MRC Board.

A more detailed description of my qualifications is set forth in Appendix A.

## **II. Introduction and Summary**

The Joint Sports Claimants asked that I review the testimony Dr. Jeffrey Gray submitted in this proceeding on behalf of the Program Suppliers.<sup>2</sup> Dr. Gray sought to estimate what he termed the “distant viewing levels and shares” of different categories of programming during the years 2010-13.<sup>3</sup> It is not entirely clear, from a review of Dr. Gray’s written testimony alone, what he considers “distant viewing” to mean. However, as I understand it, Dr. Gray sought to estimate distant viewing by counting the number of Nielsen National People Meter (NPM) cable households that viewed all or any portion of each quarter-hour of programming on particular out-of-market broadcast stations.<sup>4</sup>

I believe that Dr. Gray’s estimates of “distant viewing” are unreliable and invalid for at least two reasons. First, they are based solely upon data from Nielsen’s NPM service. That service, however, is designed to measure only nationwide viewing for nationally televised programs; it cannot properly be used to estimate viewing in particular markets, primarily because of sampling design and sample size limitations. Second, Dr. Gray fails to account for the fact that Nielsen assigns different weights to each of the NPM households; he improperly treats each

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<sup>2</sup> See Testimony of Jeffrey S. Gray, Ph.D. (Corrected April 3, 2017) (“Gray Testimony”).

<sup>3</sup> See Gray Testimony at p. 19, Table 2.

<sup>4</sup> See Gray Testimony at p. 19, Table 2. The industry typically defines viewership of a program as the number of households tuned to the average minute of said program – and most importantly is based on the projected sample as opposed to an individual NPM household.

NPM household as having the same weight. Thus, he ignores an element that is critical to the accurate and fair use of Nielsen data.

In my opinion, one cannot reasonably consider the “viewing” estimates in Table 2 of Dr. Gray’s testimony to reflect distant viewing by the universe of cable subscribers.

### **III. Nielsen Employs Different Samples and Methodologies to Measure National Viewing and Local Viewing**

Nielsen offers different services to measure the audiences that watch television programming. One such service (NPM) measures national audiences that watch programming distributed nationally by national broadcast and cable networks and via syndication. Other services measure the audiences for programming televised by individual broadcast stations.

#### **A. National People Meter (NPM) Service**

Nielsen’s NPM service “provides estimates of in-home audiences of nationally televised programs” and is “based upon a national sample of U.S. television-equipped households.”<sup>5</sup> Nielsen implemented the NPMs in 1987 as the method of collecting audience viewing data for all national television programming. The people meter is an electronic device that utilizes a meter attached to the TV set in combination with a remote control that has a button for each member of the sample household who is instructed to push his or her respective button when watching television. The meter automatically captures when the television set is on and the channel to which it is tuned while the remote captures the household member who is viewing. Previously Nielsen estimated national viewing using a combination of set meters which measured the on/off status of the television set as well as the channel tuned and length of that tune, with “diaries” where sample households wrote down the programs they watched and when they watched them. As cable penetration expanded in the 1980s, diaries were deemed unreliable

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<sup>5</sup> Nielsen National Reference Supplement 2012-13 at 1-1, Bates No. PS-2010-13-C-004415-004607.

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as a means of capturing viewing and thus Nielsen switched to people meters for national audience estimates. Since the latter captured viewing electronically, this change provided what Nielsen considered to be more accurate ratings estimates, especially for lower rated nationally-distributed cable networks.

During the years 2010-2013, the NPM sample consisted of approximately 22,000 households. Nielsen carefully selected the NPM sample to represent approximately 110,000,000 U.S. TV Households, approximately 60% of which subscribed to cable. In order for a sample that small to properly represent a constituency that large, special care must be given to sample selection, including (but not limited to): geographic distribution (to ensure all areas in the U.S. are represented); demographic distribution (age, gender, race, ethnicity, income, education, etc.); cable status; and presence of children. Nielsen employs sophisticated weighting schemes to lessen the chance of any bias in the NPM audience estimates. Each household is representative of a certain number of viewers. As Nielsen explains: "The weights measure the number of people in the population that are represented by each member of the sample. For example, if [a] sample member has a weight of 20,000 for a selected day, this means that on that day the sample member represents 20,000 in the population."<sup>6</sup> As this also suggests, the weight attached to each NPM household might vary on a daily basis.

Nielsen selected the NPM households to be representative of nationwide viewership of programming that is distributed nationally. These households were not selected to measure viewership in particular markets or portions of those markets; generally, there are insufficient participating NPM households in a given locality to measure local viewership. While there

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<sup>6</sup><https://audiencewatch.nielsen.com/data/help/Tutorial/Appendices/Weighted%20vs.%20Unweighted/weighted.htm>



might be a people meter or two in a specific county, one could not properly use the viewing results from those people meters alone to estimate the local viewing in that county.

**B. Local Market Services**

Nielsen employs different samples when measuring local rather than national viewership. Nielsen uses three different methods for measuring local markets which vary depending on market size. There are a total of 210 local markets in the U.S., known as “Designated Market Areas” (DMAs). Nielsen assigns each county in the United States to one, and only one, DMA so that the DMAs are mutually exclusive and do not overlap. It also associates each broadcast television station with a single DMA.

**1. Local People Meters (Top 25 Markets)**

In the top 25 DMAs, Nielsen supplements the NPM households with additional people meters, known as Local People Meters (LPM), because there simply are not enough National People Meters in any market to measure local viewing in that market. For the largest markets (1-5) in 2010-2013, Nielsen added between 800 and 1000 additional households per market, and it added 600 per market for the remaining twenty markets. For each such market, Nielsen weighted the NPM sample households differently to be representative of the local market rather than the national market.

**2. Set Meters/Diaries (Markets 26-56)**

In the next largest group of DMAs (26-56) Nielsen utilized a combination of set meters (to gather household viewing) and diaries (to capture demographic viewing) during 2010-2013. The set meter is attached to the television and captures set on/off and channel tuned. The meters measure household viewing 24/7 passively. However, a completely different sample of homes fill out paper diaries which are only done for one week at a time during the sweep periods of February, May, July and November (note: the larger markets have three additional months of

measurement). The diaries are merged with the household tuning data from the set meters to project audience estimates in a process called meter/diary integration. Sample sizes vary by market.

### **3. Diaries (Market 57-210)**

During 2010-2013, Nielsen used diaries in all non-LPM markets (as described above) but diaries were the sole source of audience measurement in markets 57-210. A completely separate sample is utilized in each of these markets and respondents are recruited to fill out one 7 day/24-hour diary per member of the recruited home during the sweep periods.

\* \* \* \* \*

All of the above methods employ varying design-specific weighting schemes to ensure proper representation. The importance of these design-specific statistical adjustment procedures cannot be underestimated as these adjustments are critical to the mitigation of bias in the projections.

## **IV. The Distant Viewing Estimates In The Gray Testimony (Table 2) Are Unreliable And Invalid**

### **A. Misuse of National People Meter Data**

I understand that, for each of the years 2010-2013, Dr. Gray selected a stratified random sample of approximately 150 broadcast television stations of the more than 1,000 stations that cable systems retransmitted outside the their local markets, *i.e.*, on a distant signal basis.<sup>7</sup> Nielsen then provided Dr. Gray with a custom report that was purported to show the number of NPM cable households tuned to all or any portion of a quarter hour of programming broadcast on the sample stations during 2010-2013 — broken down by the number of NPM households

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<sup>7</sup> I understand that a broadcast station is generally considered to be a “distant signal” in geographic areas outside its local DMA; however, for purposes of these proceedings, the legal standard for determining distant signal status is not in all cases identical to the DMA.

located within counties that the Program Suppliers considered local for each such station (local NPM households) and NPM households outside those counties (distant NPM households).<sup>8</sup>

For approximately 94 percent of the quarter hours on the Gray sample stations, Nielsen's custom report provided Dr. Gray with no data whatsoever as to viewing by distant NPM households; for the remaining quarter hours, the Nielsen custom report generally showed that no more than one or two NPM cable households viewed all or a portion of those quarter hours. Less than 0.01% of the quarter-hours showed viewing by more than five NPM cable households.<sup>9</sup>

These results are not surprising. As explained above, Nielsen designed the NPM service on which Dr. Gray relied, to measure national viewing of nationally-distributed programming, not to estimate the number of households that viewed a broadcast station's programming in any given market, local or distant. Thus, there were an insufficient and unrepresentative number of NPM households to measure viewing in each market; and, for all markets, the participating households were weighted in the NPM sample to be representative on a national rather than local level. Dr. Gray appears to recognize as much when he states that the "many instances of no recorded distant viewing" were "[d]ue to the low frequency of distant viewing and the size of the sample Nielsen uses to measure total U.S. household viewing ...."<sup>10</sup> What he ignores, however, is that that the NPM sample was not intended to measure viewing in each separate market.

The one exception here involves viewing of programming on WGNA, which was included in each of Dr. Gray's 2010-2013 samples. Unlike the other sample stations, WGNA was nationally-distributed and available to over 40 million cable households around the country in 2010-2013, and the NPM service should have been able to provide valid and reliable viewing

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<sup>8</sup> See Gray Testimony at pp. 12-13; Testimony of Paul B. Lindstrom, at pp. 4-5 ("Lindstrom Testimony") (Dec. 22, 2016); Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-13 Cable Royalty Proceeding, at pp.11-12 (Sept. 15, 2017) (Wecker Report).

<sup>9</sup> See Wecker Report at p.13.

<sup>10</sup> See Gray Testimony at p. 17.

estimates for WGNA. However, as I understand it, Nielsen's custom report for Dr. Gray showed no data for the vast majority of quarter hours on WGNA and showed no more than one household as viewing each of the remaining quarter hours.<sup>11</sup> Indeed, according to the report, only one distant NPM household watched one minute of a single program (a Bulls telecast) during the year 2013. I would not have expected such results. And, in fact, they appear to be inconsistent with NPM viewing data that Nielsen has provided to other customers.<sup>12</sup>

**B. Failure To Account For Nielsen Weighting**

An additional problem with Dr. Gray's study is that he estimates distant viewership using unweighted Nielsen data. As explained above, Nielsen carefully weights each NPM household to help ensure that the NPM data can properly be projected to the universe; those weights are not all the same and weightings may change on a daily basis for individual NPM households. The weight of a sample member equals the number of members of the population that the sample member represents. Nielsen sample weights are generally between 4,000 and 30,000.

In arriving at his distant viewing estimates, Dr. Gray treats each NPM sample household as equal — even though each NPM sample household is not equal in Nielsen's sample design. Rather, each household is representative of a different number of potential viewers. Simply estimating the number of sample participants that might view a given program is not an accurate means of estimating viewership. By ignoring the weighting and assuming one people meter household is the same as another, Gray also applies the unweighted data in a manner for which it was not intended. It should be noted that it would likewise be inappropriate to apply the NPM weights to data concerning distant viewing. As discussed above, Nielsen develops weights specific to the sample at issue. The NPM weights are only representative of national viewing. In

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<sup>11</sup> See Wecker Report at pp.13-14.

<sup>12</sup> See Wecker Report at p. 15.

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order to estimate distant viewing, one would need to develop weights specific to the market being estimated.

I declare under penalty of perjury that the foregoing is true and correct.

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Executed on September 13, 2017.

A handwritten signature in cursive script, appearing to read "Susan Nathan", written in black ink.

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Susan Nathan

## APPENDIX A

### **Susan Nathan Consultancy:** January 2015-present

Susan uses her expertise in research and technical media issues to provide guidance and advice to organizations in the media industry.

### **Turner Broadcasting:** August 2007-December 2014

Senior Vice President, Affiliate Research, Media Currency & Research Systems

Susan held a leadership role at Turner and was on the Executive Committee that oversaw the 180 Turner Researchers. She ran a successful team of research professionals and her varied responsibilities included:

Complete oversight of Turner Network Sales & Marketing research efforts which provided insight on audiences and industry trends, and oversaw the development of analyses and custom research to assist top management in setting strategy and goals for marketing Turner's networks to MVPDs;

All research activities for TBS, Inc.'s in-house media planning agency, Turner Media Group (TMG), including designing and conducting custom research on the effectiveness of off-air promotions as well as partnering with media sellers to develop key insights for the implementation of strategic media plans;

Ongoing research analysis and insights regarding advertising currencies, audience measurement initiatives and emerging industry and market trends in support of all TBS, Inc. businesses. This specifically included expertise in all issues regarding Nielsen;

Management of all research systems utilized by Turner Research including the development of custom and proprietary modules to drive increased business for TBS, Inc.;

Oversight of Turner's Media Lab facility in Atlanta utilized for focus groups and usability studies benefiting TBS, Inc. businesses.

### **Other Professional Experience:**

1991-2007     Senior Vice President, Director of Media Knowledge  
Universal McCann/McCann Erickson

1986-1991     Senior Vice President, Director of Media Research  
Laurence, Charles, Free & Lawson

1981-1986     Vice President, Director of Media Research  
Needham, Harper Worldwide

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1978-1981     Network Negotiator  
1977-1978     Senior Media Research Analyst  
                 William Esty Company

1974-1977     Account Group Manager  
                 A.C. Nielsen Company

Professional Associations

4A's Media Research Committee (member 1986-2007, former Chair)  
AMRC – Agency Media Research Council (member 1981-2007, former Chair)  
ARF – Advertising Research Foundation (member 1980-2014, former Subcommittee  
Chairperson)  
CIMM – Coalition for Innovative Media Measurement (2009-2014)  
MRC - Media Ratings Council (member 1990-2014, former Chair of the Board)  
Nielsen Customer Expert Committee (2007-2014)  
Nielsen Policy Guidelines Committee (1997-2005)

Susan has been very active in the media research community include being a long standing active member of the Media Rating Council including its Board of Directors and has served as Chair of the Board. In addition to the MRC, she served as Turner's representative on CIMM (Coalition for Innovative Media Measurement), CRE's RPD Committee, comScore's Cross Media Advisory Board, the CONCAM Technical Subcommittee, the IAB Research Council and several ARF committees.

Susan was also the former Chair of the 4A's Media Research Committee and the Agency Media Research Council from her days on the agency side of the business.





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Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.

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*In re*

DISTRIBUTION OF CABLE  
ROYALTY FUNDS

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Written Rebuttal Testimony of

ALLAN SINGER

September 15, 2017

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## **I. QUALIFICATIONS**

1. I have over twenty years of experience as an executive involved with both the acquisition and licensing of television programming to and by cable system operators (“CSOs”) and other multichannel video programming distributors (“MVPDs”). I served as a programming executive at Tele-Communications, Inc. (“TCI”) and its successor ATT Broadband (1996-2003), Comcast (2003-09) and, most recently, Charter Communications (2011-16) where I was the head of the programming department. During my tenure, Charter operated over 100 “Form 3” cable systems and became the most profitable CSO in the country. My responsibilities at Charter and the other CSOs included the negotiation (and overseeing the negotiation) of licensing and carriage agreements with several basic and premium cable networks, broadcast television stations and regional sports networks (“RSNs”); in the process, I evaluated a wide range of sports and other programming on behalf of MVPDs and in licensing such content for cable and regional sports networks. I also served as EVP, Distribution and Strategy, for the Oprah Winfrey Network (2009-11), a cable network reaching over 80 million subscribers; and I have represented several cable networks and RSNs in the negotiation of carriage agreements with MVPDs.

2. A more detailed description of my qualifications is set forth in Appendix A to my December 22, 2016 written direct testimony on behalf of the Joint Sports Claimants (“JSC”) in this proceeding.

## **II. INTRODUCTION AND SUMMARY**

3. In my written direct testimony, I discussed the factors that affect a CSO’s decision whether to carry, and how much to pay for, particular types of programming. I also discussed why CSOs placed a very high value on the live professional and college team sports programming on distant signals during the years 2010-13, as reflected in the cable operator

surveys conducted by Bortz Media & Sports Group, Inc. (“Bortz”).<sup>1</sup> In addition, I explained how testimony offered by other cable executives concerning program valuation in prior cable royalty distribution proceedings had applicability in this proceeding as well.

4. At the request of JSC, I have now reviewed the written direct testimony presented on behalf of the Program Suppliers by Sue Ann R. Hamilton, Howard Horowitz, John Mansell, Jan Pasquale and Professor Joel Steckel. I do not believe that anything in the testimony of these witnesses provides a proper basis for departing from the results of the 2010-13 Bortz surveys to determine the relative value of the different types of distant signal programming that CSOs carried during the years 2010-13; nor does that testimony undermine the fact that the MLB and NBA programming on WGNA, the most widely carried distant signal during that period, was the principal driver of that carriage.

### **III. PROGRAM SUPPLIERS’ WRITTEN DIRECT TESTIMONY**

#### **A. Sue Ann R. Hamilton**

5. Ms. Hamilton — who left Charter in 2007 — suggests that cable systems carried WGN America (“WGNA”) because they were “required” to do so as part of a “bundle” of Tribune Media stations.<sup>2</sup> During the 2010-13 period at issue in this proceeding, Charter systems that carried WGNA did so because of the value it provided, not because of any “bundling” or other leverage from Tribune. Indeed, during this period, an annual average of approximately 86 Charter Form 3 systems made the decision to carry WGNA on a distant basis each year, and on average approximately 69 of those systems did not carry any other Tribune station in addition to WGNA. At same time, approximately 11 Charter Form 3 systems carried Tribune-owned

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<sup>1</sup> See Bortz, “Cable Operator Valuation of Distant Signal Non-Network Programming: 2010–13” (“Bortz Report”) (Dec. 22, 2016).

<sup>2</sup> Written Direct Testimony of Sue Ann R. Hamilton, at 7 (“Hamilton Testimony”) (Dec. 22, 2016).

stations on a local basis, but did not carry WGNA. These carriage patterns are not consistent with Ms. Hamilton's claim that Tribune required cable systems during 2010–13 to carry WGNA as part of a bundle deal for other Tribune Media stations. The data also demonstrate that individual Charter systems determined whether carriage of WGNA made economic sense for each such system.

6. While there was a “legacy” of carrying WGNA on many systems, the mere fact of legacy carriage would not result in a Charter system continuing to carry a signal, as Ms. Hamilton suggests.<sup>3</sup> Programming costs were growing by 8-12% annually with the largest driver of those increases being sports programming. In light of this cost pressure, every programming expense was scrutinized closely, including the costs of carrying distant signals — notwithstanding that, as Ms. Hamilton notes, distant signal costs were a “small fraction” of Charter's overall programming budget.<sup>4</sup> During the 2010–13 period, the decision whether to carry WGNA, and other distant signals, on a particular system remained at a local or regional leadership level, subject to review at the corporate level (which was one of my responsibilities).

7. I considered WGNA as justifying its cost on its own merits, primarily due to the MLB and NBA programming available on WGNA. In evaluating the desirability of carrying a particular distant broadcast signal or cable network, I (and other programming professionals) focus not on its total “24/7” content provided, but rather on the signature programming or other differentiating content that it offers. In the case of WGNA, the key programming that justified its continued carriage on Charter systems during 2010–13 was the live MLB and NBA sports telecasts. In my judgment the undifferentiated syndicated shows, movies, devotional programming and infomercials on WGNA would not have justified a field leader's decision to

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<sup>3</sup> See Hamilton Testimony at 6.

<sup>4</sup> *Id.* at 8.

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retain WGNA as a distant signal. Indeed, far from adding value, content such as infomercials detracted from the value of the WGNA signal; although it was not possible under the laws governing the carriage of distant signals, it would have been preferable to omit that content from the WGNA signal. By contrast, due to the compulsory license, the MLB and NBA live-game telecasts on WGNA were in fact cheaper to obtain than most telecasts of live team sports programming available in the unregulated marketplace, and that alone justified the continued carriage of WGNA.

8. This focus on key programming — most often live professional and college team sports — was not unique to WGNA. For example, in determining the value of carrying an RSN, the key focus is on telecasts of live team events, specifically the JSC professional sports leagues (MLB, NBA, NFL, and NHL), college football and men's college basketball. The other "shoulder" programming and lesser sporting events carried by an RSN made little to no difference to the value of the RSN to Charter (and other MVPDs). This is reflected in the fact that MVPD carriage agreements with RSNs typically delineate the network's value based on the carriage of those JSC telecasts. In contrast, carriage agreements for other types of networks typically provide for only general content descriptions (e.g., a "24-hour news service" or a "general entertainment network primarily focused on health and wellness") and content prohibitions (e.g., no adult programming, no infomercials), and do not require the continued carriage of specified programming. The contractual requirements regarding continued carriage of JSC telecasts reflect the high value (and cost) of this must-have live sports programming (as well as the recognition that this JSC programming has uniquely recognizable value).

9. Ms. Hamilton (and other Program Suppliers witnesses) suggest that the relative value of each type of programming on distant signals is better reflected in its relative share of

viewing among cable subscribers rather than its share in the Bortz survey of CSOs. But that is wrong. In particular, live professional and college team sports programming typically commands a much higher price than its Nielsen ratings would suggest when licensed to cable networks; and cable networks and RSNs with JSC programming command higher license fees than their Nielsen ratings would suggest. On the other hand, other programming with significant Nielsen ratings frequently receive relatively low license fees from MVPDs. This is particularly true of cable networks whose programming is comprised mostly of undifferentiated movies and syndicated shows from prior seasons, as such programming may be found on many channels, watched on-demand or is frequently available on online services. In contrast, live team sports programming commands premium prices because it is unique, differentiated programming involving live events with passionate fans. Nielsen ratings have even less significance to determining value where, as is the case with distant signals, CSOs may not insert advertising and derive advertising revenues related to viewership.

10. For all types of cable networks, MVPDs typically pay license fees on a per subscriber/per month basis, regardless of whether that subscriber actually views the programming on the network. During 2010-13 sports networks such as ESPN and RSNs received the highest license fees by multiples over the fees paid for even the highest rated general entertainment networks, whose programming is primarily original series, syndicated prior seasons and movies. Further, the general entertainment cable network with the highest license fees in 2010-13, TNT, was not the most highly rated general entertainment network, but did carry JSC sports. Despite healthy ratings, many cable networks carrying primarily movies and/or syndicated series garnered license fees that were significantly less than what sports networks commanded.



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11. Ms. Hamilton (and other Program Suppliers witnesses) also are incorrect to suggest that the definition of the Sports category used in the Bortz survey – live professional and college team sports – would be confusing to MVPD executives because it is inconsistent with the general cable industry classification of program genres.<sup>5</sup> To the contrary, industry professionals routinely consider that segment of programming to be a distinct (and uniquely valuable) category. For example, as discussed above, MVPD licensing agreements with RSNs typically carve out live professional and college team games into a separate category from all of the other content on the RSN — in a manner recognizing that it is those games (not the other content on the RSN) that drives the network’s value to MVPDs. In short, thinking of live professional and college team sports as a special and distinct subset of programming is a familiar concept to MVPD executives.

12. The Bortz definition is clear to industry professionals — it is expressly limited to “team” sports, and only includes “professional” or “college” sports. Programming professionals understand that auto racing, golf, tennis, running, swimming and the like are not “team” sports, and that the Olympics are not professional or college sports. Additionally, the more prominent “other” sports events — such as major golf and tennis tournaments and the Olympics — were typically carried on Big 3 *network* broadcasts (or specialty cable networks such as the Tennis Channel and Golf Channel) that are not compensable in these proceedings.<sup>6</sup>

13. Moreover, the sporting events that impart significant value to a distant signal from the perspective of an MVPD are live professional and college team sports. The presence or absence of other, more minor sporting events was not material to my evaluation of whether it

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<sup>5</sup> See Hamilton Testimony at 10–12.

<sup>6</sup> The Bortz surveys expressly reminded respondents to “exclude from consideration any national network programming from ABC, CBS and NBC.” Bortz Report at 16, 17.

made sense for a Charter system to carry a particular distant signal. For example, WGNA carried a single horse race per year, the “*Arlington Million*,” in 2011-13.<sup>7</sup> I do not recall whether I was aware of that fact at the time, but the presence or absence of that horse race would have had no impact on my assessment of WGNA’s value proposition to Charter. Likewise, from my perspective as programming professional, whether a distant signal carried events such as “ninja” and “warrior” races, cycling, running, swimming, wrestling, figure skating and the “other sports” identified by Ms. Hamilton<sup>8</sup> was not a material consideration in determining whether to carry that signal.

**B. Howard Horowitz**

14. I understand that other JSC witnesses will address the methodology of Mr. Horowitz’s cable operator surveys more comprehensively.<sup>9</sup> From my perspective as a cable programming executive, the addition of an “Other Sports” category to the Horowitz surveys did not make sense for the reasons discussed above; non-network “Other Sports” had no meaningful presence in the distant signal marketplace during the years 2010-13. While I did not consider “Other Sports” to be a material consideration for any distant signal, it is particularly surprising that Mr. Horowitz included an “Other Sports” category in his questionnaires for CSO respondents (nearly one-half of his respondents) that carried WGNA as their only commercial distant signal. For all practical purposes, there were no “Other Sports” on WGNA.

15. The 2011-13 Horowitz surveys list the “*Arlington Million*” as an “example” of “Other Sports” on WGNA.<sup>10</sup> However, as noted above, that single horserace was the only

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<sup>7</sup> Written Rebuttal Testimony of James M. Trautman at 17 (“Trautman Rebuttal Testimony”) (Sept. 15, 2017).

<sup>8</sup> Hamilton Testimony at 11.

<sup>9</sup> See Corrected Written Direct Testimony of Howard Horowitz (“Horowitz Testimony”) (April 25, 2017).

<sup>10</sup> Trautman Rebuttal Testimony at 20.

“Other Sports” on WGNA during each of the years 2011-13, and the presence or absence of that single horserace was immaterial to the value of WGNA as a distant signal.

16. For the year 2010, the Horowitz survey lists *WWE Superstars* as an example of “Other Sports” on WGNA. My understanding is that there were only two compensable hours of “*WWE Superstars*” on WGNA in all of 2010.<sup>11</sup> *WWE Superstars* was a pre-taped, staged entertainment program; as a programming professional, I do not consider it (and similar “pro wrestling” shows) to be sports programming at all. In my opinion as a cable programming professional, those two episodes of *WWE Superstars* did not contribute any material value to WGNA in 2010.

17. The Horowitz surveys instructed respondents, “Please do not assign any value to programs that are substituted for WGN's blacked out programming.”<sup>12</sup> This instruction apparently was intended to address the fact that programming shown on WGNA is compensable in these proceedings only if it was carried simultaneously on the local WGN Chicago signal. However, from a CSO's perspective, the percentage of WGNA programming that was compensable to copyright owners had no bearing on the amount of statutory royalties the CSO had to pay in order to carry WGNA. Therefore, I — and another programming executives — had no reason to know or seek to determine which local WGN programming was and was not “blacked out” on WGNA, and this instruction was meaningless as best.

**C. John Mansell**

18. The data in Mr. Mansell's testimony provide further confirmation that live team sports programming was very valuable to MVPDs in 2010-13. While focusing on the growth of additional outlets for sports programming such as RSNs, the Mansell report overlooks two key

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<sup>11</sup> Trautman Rebuttal Testimony at 21.

<sup>12</sup> Horowitz Testimony at 36.

points. First, that growth was driven by (and reflects) the high value of telecasts of live professional and college team sports. Live team sports telecasts likewise had a high value when carried on distant signals. Second, despite growth of RSNs, the amount of live team sports on distant signals remained stable in 2010-13 as compared with 2004-05. Indeed, data on the compensable minutes of distant signal programming, weighted by the number of subscribers to which it was retransmitted, indicates that if anything live team sports comprised a somewhat greater share of the compensable distant signal marketplace in 2010-13 than in 2004-05.<sup>13</sup> Further, the amount of live team sports carriage on the most widely carried distant signal, WGNA, remained consistent from 2004-05 to 2010-13, even as the amount of compensable Program Suppliers content on WGNA decreased over that period.<sup>14</sup> Therefore, none of the changes discussed by Mr. Mansell would warrant any decrease the relative share of the Sports category from its 2004-05 shares.

19. Moreover, broader changes in the media environment, which Mr. Mansell ignores, actually increased the relative value of live team sports versus other types of programming on distant signals. By 2010, the relative value of syndicated programming and movies on distant signals had been driven down by the proliferation of other sources for such programming. These include not only incremental, new cable networks and time shifted platforms such as on-demand, but also increasingly successful platforms such as Netflix, which made the undifferentiated, widely accessible movie and syndicated series programming exhibited on distant broadcast signals even less necessary and thus less valuable.

20. In contrast, sports are unique as they represent the only programming (besides breaking news events) that is resistant to time-shifted viewing. We watch sports to see what

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<sup>13</sup> Written Rebuttal Testimony of Mark Israel, Ph.D., at pp. 17-18 and Table 4 (Sept. 15, 2017).

<sup>14</sup> Bortz Report at 27-29; Bortz Media compilation of JSC telecasts on WGNA.

happens at the moment it occurs, as the events unfold on the field of play. With the passion consumers feel for sports teams, there is immediacy that necessitates the ability to witness sports as they happen, a requirement that a game will be available for viewing at the moment it is being played. As a result, live sports programming has been relatively immune to the impacts of the evolving media environment — and thus has increased in relative value — in the years since 2005.

**D. Jan Pasquale**

21. Mr. Pasquale, who previously worked at HBO, states that HBO found Nielsen ratings data to be useful and that he “would expect CSOs to find Nielsen ratings similarly valuable in deciding what broadcast stations to retransmit.”<sup>15</sup> As discussed above, Nielsen ratings do not correspond with the amounts that CSOs pay for programming, particularly JSC programming on distant signals. Rather, the critical considerations in determining whether to carry or continue to carry a distant signal were the existence of unique, differentiated content and “must have” programming such as live team sports.

22. Moreover, even in the very different context of premium networks such as HBO, in my experience Nielsen ratings were a non-factor in those premium networks’ carriage negotiations with MVPDs. I personally negotiated renewals with HBO at TCI, Comcast, and Charter, and I do not recall Nielsen data ever being part of a sales presentation or discussion with HBO. If the HBO sales team did discuss the service’s popularity, it was in the context of survey evidence demonstrating certain program’s popularity and loyal followings (e.g., *Girls*’ popularity with women aged 18–54) or that including HBO in bundled packages was an expectation of an MVPDs’ customers.

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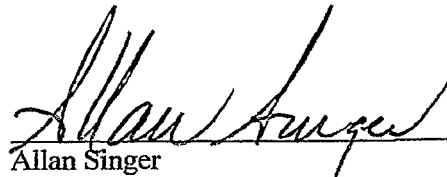
<sup>15</sup> See Written Direct Testimony of Jan Pasquale, at 4 (Dec. 22, 2017).

**E. Professor Joel Steckel**

23. Professor Steckel opines that the Bortz survey required respondents to undertake an “unfamiliar” task because they were asked to value categories of programming, rather than valuing entire signals or networks.<sup>16</sup> It is true that CSOs generally acquire the rights to carry an entire signal or cable network. However, evaluating what to pay for a signal or network necessarily requires consideration of the value of the various types of programming on it (and in particular the signature programming). Additionally, different networks feature different types of programming (CNN features news, ESPN and RSNs feature sports, TBN features devotional programming, etc.), and CSOs need to be familiar with and consider the relative value and costs of these different types of cable networks, which turns on their underlying programming content. Thus, contrary to Professor Steckel’s speculation, the task posed by the Bortz survey was not an unfamiliar one, but rather involved factors that are familiar to programming executives.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 13, 2017.

  
Allan Singer

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<sup>16</sup> See Written Direct Testimony of Joel Steckel, Ph.D., at 23–24 (Dec. 22, 2017).



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Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.

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*In re*

DISTRIBUTION OF CABLE  
ROYALTY FUNDS

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) NO. 14-CRB-0010-CD (2010-13)  
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Written Rebuttal Testimony of

Daniel M. Hartman

September 15, 2017



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**I. QUALIFICATIONS**

1. I am president of Hartman Media Consultants, providing consulting services for various media clients, including cable television networks, program distributors and investors in television programming distribution. I have nearly twenty years of experience in the satellite television business as an executive responsible for the valuation and acquisition of television programming, including fifteen years in that capacity at DIRECTV, the nation's largest satellite television provider. I have also served as a board member of The Tennis Channel, where I provided guidance on distribution and channel strategy matters, and as Senior Counsel, Legal Affairs, at Fox Broadcasting Company.

2. During my tenure at DIRECTV I worked regularly with the CEO and other senior executives as lead strategist with respect to pricing and packaging of content as well as budgeting and forecasting of programming costs. I was closely involved in the selection of channels for DIRECTV (including distant signal programming). Throughout my tenure at DIRECTV, I negotiated hundreds of programming distribution agreements covering all types of content, including retransmission consent agreements for broadcast television station carriage. During the period covering 2010-2013, I also negotiated an agreement for the rights to continue receiving the satellite signal of WGN America ("WGNA"). Thus, I gained insight into the variety of programming available to multichannel video programming distributors ("MVPDs") and the rationale for carriage. My responsibilities required me to be familiar with the types of programming being offered by DIRECTV's competition as well as the value of, and fair market price for, that programming.

3. My background and qualifications are described more fully in Appendix A to my Written Direct Testimony dated December 22, 2016, submitted to the Copyright Royalty Judges ("Judges") on behalf of the Joint Sports Claimants ("JSC").

## II. INTRODUCTION AND SUMMARY

4. My December 22, 2016 Written Direct Testimony explains that the relative valuations reflected in the 2010-13 cable operator surveys by Bortz Media & Sports Group, Inc. (“Bortz surveys”) comport with my experience and knowledge in the industry; that live professional and college team sports programming (“Sports programming”) on distant signals is particularly important to multichannel video programming distributors (“MVPDs”); and that the relative value of Sports programming exceeds that of other types of programming, as reflected in the Bortz surveys.

5. In this rebuttal testimony I address assertions concerning the relative value of Sports programming and the 2010-13 Bortz surveys in the written direct testimony submitted on behalf of Program Suppliers by John Mansell, Sue Ann R. Hamilton, and Dr. Joel Steckel. Nothing in the testimony of those witnesses provides any basis for valuing Sports programming less than the Bortz surveys show.

6. As discussed below, Mr. Mansell is incorrect to suggest that Sport programming on distant signals had a lower relative value in 2010-13 than in prior years; to the contrary, the relative value of Sports programming has increased over time, as it has been more resistant to the changing media environment than other, non-live types of programming. Ms. Hamilton’s assertion that WGNA was carried primarily for reasons unrelated to its value to MVPDs is unsupported and contrary my experience in the industry, including my negotiations for the continued carriage of WGNA during the time period at issue. WGNA, and in particular its Sports programming, provided a good value proposition to MVPDs. Ms. Hamilton also mischaracterizes the significance of viewership in assessing value; as marketplace prices confirm, viewership is not a reliable measure of value. I also disagree with Ms. Hamilton’s claim that respondents would be confused by the program categories in the Bortz survey. Those

categories are clear to programming professionals and correspond with common industry understandings — e.g., that live professional and college team sports events are a distinct and uniquely valuable type of programming. Finally, Dr. Steckel is wrong to suggest that the Bortz survey required respondents to grapple with “unfamiliar constructs”; the survey respondents were executives with principal responsibility for programming decisions at their systems and as such are well-versed in assessing the relative value of various types of programming.

**III. MR. MANSELL’S TESTIMONY CONFIRMS THE HIGH VALUE OF SPORTS RELATIVE TO OTHER TYPES OF DISTANT SIGNAL PROGRAMMING**

7. The stated purpose of Mr. Mansell’s testimony is to “analyze the changes” in the carriage of Sports programming “in light of distribution and technology options that evolved through 2013 to compete for the attention of the consumer” of that programming.<sup>1</sup> Mr. Mansell’s testimony does not support according a lower relative value for Sports programming in 2010-13 than in 2004-05, the period at issue in the Judges’ most recent litigated allocation of royalties. To the contrary, his testimony confirms the high value of Sports programming relative to other types of distant signal programming.

**A. Mr. Mansell’s Data Reflects that Sports Programming was Highly Valued by MVPDs in 2010-13**

8. Mr. Mansell describes the growth of new outlets for Sports programming such as regional sports networks (“RSNs”).<sup>2</sup> However, he ignores that this growth reflects and was driven by the high value of Sports programming to cable system operators (“CSOs”) and other MVPDs relative to other types of programming. The same factors that make Sports programming especially valuable when carried on RSNs and other cable networks — it is

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<sup>1</sup> Amended Written Direct Testimony of John Mansell (“Mansell Amended Testimony”), at 3 (Mar. 9, 2017).

<sup>2</sup> *Id.* at 8–11.

unique, live “must have” programming — likewise make Sports programming the most valuable type of programming on distant signals.

9. Other elements of Mr. Mansell’s report provide a similarly strong indicator of the high value MVPDs accord to this type of programming. For example, Mr. Mansell notes that RSNs often lock up Sports programming by paying “very high rights fees in exchange for exclusive and long term agreements.”<sup>3</sup> He states that by 2010, RSNs were generating an estimated \$4.2 billion in affiliate fees — an increase of approximately \$1.7 billion, or 68%, from 2005 — and were rising at a 10.4% compound annual growth rate.<sup>4</sup> That number is higher than the compound annual growth rate for non-sports networks. In 2013 SNL Kagan reported that sports fees paid by cable, satellite and telco companies were on pace to increase 12% in 2013, double the rate for non-sports programming.<sup>5</sup>

10. The high costs that MVPDs paid for Sports programming reflects the great value of that programming to their systems. Based on my experience in the MVPD industry, the value of RSNs to MVPDs flows almost entirely from their carriage of live professional and college team games, and not the other programming on those networks. Similarly, the live sports programming on ESPN is the most valuable programming to MVPDs (and their subscribers). Live professional and college games were “must have” programming for MVPDs. These games offer a “one of a kind” experience that fans want to watch in real time, before the results are known (which would spoil the experience).

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<sup>3</sup> *Id.* at 10.

<sup>4</sup> *Id.* at 9.

<sup>5</sup> See Spangler, Todd “Sports Fans: Get Ready to Spend More Money to Watch Your Favorite Teams,” *Variety* (Aug. 13, 2013), <http://variety.com/2013/tv/news/sports-fans-to-spend-more-money-to-watch-favorite-teams-1200577215/>.

11. These same attributes apply to Sports programming on distant signals, and as an MVPD executive I considered Sports to be the most valuable type of content on the distant signals carried by DIRECTV in 2010-13.

**B. The Relative Amount of Sports Carriage on Distant Signals in 2010-13 was Comparable to Such Carriage in 2004-05**

12. Mr. Mansell's testimony discusses changing carriage patterns for Sports programming. But Mr. Mansell fails to compare those patterns with the carriage patterns of the other types of programming at issue in this proceeding. Data on all of that programming indicates that the relative amount of compensable Sports programming carried on distant signals did not decline in 2010-13 as compared with 2004-05. Indeed, according to data presented by experts for the Commercial Television claimants ("CTV"), Sports programming had a higher share of compensable retransmissions in 2010-13 than in 2004-05, as set forth in Table 5 of the Written Rebuttal Testimony of Dr. Mark A. Israel ("Israel Rebuttal Testimony") (Sept. 15, 2017):

**Table 1: Share of Compensable Minutes by Claimant Group Weighted by Subscribers**

Claimant Group	2004-2005	2010-2013
	Ducey	Crawford
Sports	4.5%	5.9%
Program Suppliers	50.1%	33.3%
CTV	15.5%	15.6%
PTV	22.3%	36.3%
Devotional	2.7%	2.3%
Canadian	4.5%	6.6%
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>

Source: Crawford Corrected Testimony, April 11, 2017, Figure 12.

Ducey Testimony, June 1, 2009, Exhibit 8.

13. Further, the compensable Sports carriage on the predominant distant signal WGNA — and on FOX distant signals, which are compensable under the statutory license — in 2010-13 was comparable to such carriage in 2004-05. In contrast, the amount of compensable

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Program Suppliers programming on WGNA was sharply lower in 2010-13 as compared with 2004-05.<sup>6</sup>

14. The carriage of live MLB and NBA games broadcast on WGNA during the 2004-05 and 2010-13 periods is set forth in Table III-1 below.<sup>7</sup>

**Table III-1. JSC Telecasts on WGNA in 2004-05 and 2010-13**

	2004	2005		2010	2011	2012	2013
<b>Cubs</b>	65	70		68	66	71	72
<b>White Sox</b>	29	29		33	31	32	29
<b>Bulls</b>	<u>13</u>	<u>14</u>		<u>16</u>	<u>12</u>	<u>18</u>	<u>15</u>
<b>TOTAL</b>	107	113		117	109	121	116

Source: Bortz Media compilation

15. In case of FOX stations, the carriage of MLB games likewise remained stable. In 2005, FOX carried 39 MLB games. In 2010-2013, that number varied between 37 and 40 games per year.

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<sup>6</sup> Bortz Media & Sports Group, Inc., “Cable Operator Valuation of Distant Signal Non-Network Programming: 2010-13” (“Bortz Report”), at 27-29.

<sup>7</sup> The figures for WGNA in the Mansell Amended Testimony are broadly consistent, but he erroneously omits a number of MLB games in each year, and thus undercounts the number of MLB games on WGNA by 14 in 2010, 3 in 2011, 11 in 2012, and 14 in 2013. *Compare* Mansell Amended Testimony at 14 *with* Table III-1.

**Table III-2. MLB Telecasts on Fox in 2004-05 and 2010-2013**

	2004	2005		2010	2011	2012	2013
<b>Regular Season</b>	18	18		26	26	26	24
<b>All Star Game</b>	1	1		1	1	1	1
<b>LDS</b>	6	5		NA	NA	NA	NA
<b>LCS</b>	14	11		6	6	7	6
<b>World Series</b>	<u>4</u>	<u>4</u>		<u>5</u>	<u>7</u>	<u>4</u>	<u>6</u>
<b>TOTAL</b>	43	39		38	40	38	37

Source: Bortz Media compilation

16. Further, Mr. Mansell omits entirely any analysis of compensable NFL games on FOX stations. As set forth in the Table III-3 below, the number of NFL games on FOX remained steady for the periods 2004-2005 and 2010-2013.

**Table III-3. NFL Telecasts on Fox in 2004-05 and 2010-2013**

	2004	2005		2010	2011	2012	2013
<b>Preseason</b>	2	2		3	3	3	3
<b>Regular Season</b>	28	28		27	27	27	27
<b>Playoffs</b>	4	4		4	4	4	4
<b>Super Bowl</b>	1	0		1	0	0	1
<b>Pro Bowl</b>	0	0		1	0	0	0
<b>TOTAL</b>	35	34		36	34	34	35

Source: Bortz Media compilation

### C. Marketplace Evolution

17. Mr. Mansell's discussion of the evolution of the media programming landscape also is incomplete and misleading because it ignores the broader context beyond Sports programming. The proliferation of new outlets, platforms and technologies between 2004-05 and 2010-13 had a far greater impact on other types of programming than on Sports — meaning that the *relative* value of Sports was not diminished, but if anything was enhanced, by those changes.

18. Between 2005 and 2010, the available outlets and platforms for syndicated series and movies had greatly expanded. In addition to non-sports cable networks, services like



Netflix, Amazon and Hulu provided ample opportunity to fulfill the needs of the non-sports fan, resulting in the relative devaluation of this type of programming on distant broadcast signals. Such programming is also highly susceptible to time-shifted viewing, using technology such as DVRs. The proliferation of non-broadcast options for viewing movies, TV series and most other types of programming diminished the relative value of such programming available on distant broadcast signals between the 2004-2005 and 2010-2013 time periods. In contrast, the avenues for viewing Sports programming remained relatively limited during this period, and Sports telecasts inherently are relatively “DVR-proof” — fans want to see the game in real time, not after the contest has been decided and the score is known.

19. Further, not only did the Program Suppliers content become more and more abundant across multiple platforms since the 2004-05 time period, but the availability of competing content has been steadily increasing since then. The nature and quality of original content being offered on cable and premium networks, as well as OTT platforms such as Netflix and Amazon, is competing directly with the more traditional broadcast offerings and has, since the 2004-2005 period, continued to improve and expand. For instance, perhaps the signature syndicated program carried on WGNA during the 2010-13 period, *30 Rock*, was also available on Netflix during the 2010-13 period.<sup>8</sup>

20. In contrast, Sports programming is a unique product, one that cannot be duplicated or substituted. A fan will not accept a game from a different team or the substitution of one team for another. Fans tune in (live) to root for their particular team; no other content will

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<sup>8</sup> See Spangler, Todd, *Netflix Adds 'The Office' and '30 Rock' Final Seasons, Other NBC Shows on Oct. 1*, Variety (Sept. 30, 2013), <http://variety.com/2013/digital/news/netflix-adds-the-office-and-30-rock-final-seasons-other-nbc-shows-on-oct-1-1200682400/>; Wallenstein, Andrew, *NBCUniversal, Netflix Renew Deal*, Variety (July 13, 2011), <http://variety.com/2011/tv/news/nbcuniversal-netflix-renew-deal-1118039822/>.

do. Further, unlike syndicated and movie content, the supply of premium sports content is relatively fixed, which makes it all the more valuable.

21. A unique aspect of Sports programming that has rendered it comparatively immune to the proliferation of viewing options is its live, must-see-in-real-time nature. According to a recent report by Nielsen, sports programming is still overwhelmingly viewed on a live basis in contrast to other types of programming. This study found that “[w]hile the rise in time shifted viewing has altered viewing habits for nearly all program genres, live viewing remains the standard for sports. According to TV data from fourth quarter 2015, 95% of total sports viewing happens live. In comparison, only 66% of general drama viewers watch live.”<sup>9</sup>

22. These findings are consistent with my industry knowledge and experience. Sports fans want to watch their teams live; there is little interest in replays of games after the fact. Viewers of more traditional entertainment fare often “bank” one or more episodes of recent broadcasts on their DVR, or may even wait until the show has completed its season and then binge watch from the start.

#### **IV. MS. HAMILTON’S TESTIMONY MISAPPREHENDS THE RELEVANT FACTORS IN MVPD’S DISTANT SIGNAL CARRIAGE DECISIONS**

##### **A. Carriage of WGNA in 2010-13 was not Predicated on Bundling or Mere Legacy Status**

23. Ms. Hamilton asserts that cable systems carried WGNA as a distant signal “simply because it was required as part of the Tribune bundle, without regard for the particular content appearing on WGN. The original decision to carry WGN was made to provide subscriber access to other Tribune-owned stations, particularly major in-market broadcast

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<sup>9</sup> The Nielsen Company, *Year in Sports Media Report* at 4 (2015), <http://www.nielsen.com/us/en/insights/reports/2016/the-year-in-sports-media-report-2015.html>. Further, sports accounted for 93 of the top 100 live-viewed programs in 2015, compared to just 14 in 2005. *Id.*

network affiliates, and not necessarily because of content retransmitted on WGN.”<sup>10</sup> She further asserts that “[t]he continuation of WGN carriage after it was unbundled from Tribune station retransmission consent was primarily due to the legacy carriage considerations . . . rather than the content itself.”<sup>11</sup>

24. That was not the case with respect to the carriage of WGNA by DIRECTV during 2010-13. As noted above, during the period covering 2010-2013, I negotiated the agreement for DIRECTV to continue receiving the satellite signal of WGNA. That agreement was not conditioned on DIRECTV being required to carry WGNA in exchange for Tribune granting carriage rights for other Tribune stations. Moreover, I considered DIRECTV’s continued carriage of WGNA to be justified on the strength of WGNA’s own programming — and in particular its Sports programming. The MLB and NBA games on WGNA served a particular fan base and were therefore an important part of the DIRECTV channel lineup. Ceasing carriage of WGNA no doubt would upset many subscribers, largely due to the passion of those sports fans. The live MLB and NBA programming on WGNA was what I was particularly interested in carrying as a programming executive, and little or none of the other programming on WGNA would have risen to the level of “important” in my opinion.

25. It is also notable that data from Cable Data Corp (“CDC”) show that bundling of WGNA with other Tribune-owned stations was not as prevalent as Ms. Hamilton suggests. The CDC data show that in 2010-13 (1) 169 Form 3 cable systems carried a Tribune signal other than WGN (on a local or distant basis) while not carrying WGN during the same period; and (2) 725

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<sup>10</sup> Written Direct Testimony of Sue Ann R. Hamilton (“Hamilton Testimony”), at 7 (Dec. 22, 2016).

<sup>11</sup> *Id.*

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Form 3 cable systems carried WGN as a distant signal while not carrying another Tribune signal during the same period.<sup>12</sup>

26. Ms. Hamilton also states that a “very important” factor in her programming decisions was legacy carriage, especially in the case of distant signals.<sup>13</sup> In my experience, while legacy carriage was a factor in determining which channels to carry (or cease carrying), it was not a “very important” one in 2010-13. Other factors are more significant, and carry more weight, than legacy carriage including (1) cost, (2) strength of product on channel (with live sports programming being a very important factor), and (3) carriage by the competition. That being said, legacy considerations can be stronger for signals/networks carrying sports programming given sports’ fans devotion to their favorite team(s). The passion of sports fans means that they will quickly find an alternative provider if an MVPD drops the channel carrying their team. It is easier to suggest alternative programming or alternative channels when the programming affected is not live sports.

27. During the 2010-13 period the margins on programming packages were squeezed each year due to ever increasing programming costs, and each channel was examined for its cost in relation to the demand for its content, including distant signals. I did not consider distant signal costs “immaterial” as Ms. Hamilton asserts in her testimony.<sup>14</sup> During 2010-2013, WGNA accounted for over 70% of the total Section 119 royalty fees paid by DIRECTV, and it would not have incurred these fees for “legacy” reasons. Rather, DIRECTV carried WGNA because it had strong sports programming and represented a good value. It did not carry the channel simply because it had a history of carrying it.

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<sup>12</sup> See Written Rebuttal Testimony of Jonda K. Martin at 2 (Sept. 15, 2017).

<sup>13</sup> Hamilton Testimony at 6.

<sup>14</sup> *Id.* at 8.

**B. Sports Programming Would Command the Greatest Value if Distant Signal Programming were Purchased a la Carte**

28. Ms. Hamilton states in her testimony that “individual programs or categories of programs, . . . in my experience, are virtually never negotiated for, or acquired, on an individual level.”<sup>15</sup> This is generally true; MVPDs typically pay a monthly per-subscriber affiliate fee to carry an entire network and do not purchase programming individually. But it does not mean that MVPDs value programming contained on networks they carry similarly. If MVPDs did purchase programming individually, I would expect them to pay considerably more for live professional and college team sports programming than any other category of programming.

29. In fact, in my experience at DIRECTV, I would have preferred to negotiate for individual game telecasts rather than paying the affiliate fees associated with carrying entire RSNs. MVPDs ascribe virtually all of the value on an RSN to its live sports programming, giving little value to the other programming that fills out the schedule. Carrying only individual games would have saved capacity and would have allowed me to cut the programming that I did not consider to be as valuable.

30. While the standard practice is for MVPDs to negotiate for the right to carry entire signals or cable networks, that does not suggest that they value all programming on a channel equally, or that all of the programming is material to the MVPD’s carriage decision. Rather, MVPDs look for signature or marquee content or shows on a particular signal or network (e.g., live sports), or content that differentiates it from other offerings on the system. For example, in the case of WGNA, the principal value in carrying that network came from the live professional sports programming.

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<sup>15</sup> Hamilton Testimony at 2.

31. Some other programming on WGNA conferred little to no value. I ascribed little value to the syndicated programming and movies on WGNA in 2010-13. In addition, during that time period, WGNA also carried paid “infomercials.” DIRECTV was required to retransmit the full WGNA signal provided by Tribune and could not remove or replace any of the programming. However, infomercials on distant signals carried no value to an MVPD operator and, in fact, were viewed negatively. If it had been possible, I would have preferred not to carry those infomercials.

**C. Viewership Does Not Equate With Value**

32. Ms. Hamilton states in her testimony that “subscriber viewing behavior” was one of the factors she considered in making her programming decisions.<sup>16</sup> But viewership does not equate with value, particularly for Sports programming. That fact is illustrated by the license fees MVPDs pay to carry sports networks and other types of networks. In my experience, Sports programming has a far greater value per unit of viewing than other types of programming. This is borne out by the analysis presented by Dr. Mark Israel in his rebuttal testimony.<sup>17</sup> Dr. Israel examined the relationship between viewing and programming expenditures for different types of networks, and found that for the top 25 cable networks, while the number of JSC programming hours transmitted on these networks represented only 1.06% of all programming and less than 3% of household viewing hours (“HHVH”), this programming commanded more than 22% of the amount those network spent on programming. Moreover, the relationship between viewership and value is even more attenuated in the case of distant signals than it is for cable networks, because MVPDs, which utilize ratings to value advertising time, cannot insert advertising into distant signals as they can for cable networks.

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<sup>16</sup> Hamilton Testimony at 5–6.

<sup>17</sup> Israel Rebuttal Testimony at 19–21, 23–25.

33. Similarly, in examining the cable networks TBS and TNT, which carry both JSC sports and other types of programming, Dr. Israel found that in 2010-13 JSC programming comprised only 5.52% of HHVH on TBS and 7.93% percent of HHVH on TNT, but 44.40% of TBS's program expenditures, and 45.56% of TBS's program expenditures, were for JSC programming.<sup>18</sup>

34. This is also illustrated by the license fees paid by MVPD's to carry different cable networks. Depending on their content, two different networks with the same level of viewing may command very different license fees; conversely, two different networks that command equal license fees may have very different viewing. In my experience, the networks that command the greatest license fees relative to their viewing tend to be those that carry Sports programming. For example, in 2014, ESPN's licensing fees were \$5.54 per subscriber, and it averaged 2.21 million total viewers – a 2.51 ratio. In that same period, the licensing fees for the most-watched network, USA Network, were \$0.71 per subscriber, and it averaged 2.68 million total viewers – a 0.26 ratio – while the Disney Channel's licensing fees were over \$1.15 per subscriber, and it averaged 2.44 million total viewers—a 0.47 ratio. ESPN carries JSC programming, while the Disney Channel and USA Network carry almost exclusively Program Suppliers programming.

**D. Bortz Survey Program Definition**

35. Ms. Hamilton asserts in her testimony that most cable operators would be confused by “the program categories that have been adopted for this proceeding and in the Bortz Survey” because she believes they are “quite different from the industry understanding of what programming typically falls in a particular programming genre.”<sup>19</sup> I disagree. The program

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<sup>18</sup> Israel Rebuttal Testimony at 24.

<sup>19</sup> Hamilton Testimony at 10.

categories used in the Bortz survey are logical and clear to industry professionals. MVPD programming executives understand the distinctions between these types of programming, and are accustomed to thinking about and analyzing them as distinct categories.

36. It is generally understood, for example, that live professional and college team sports competitions comprise a distinct and uniquely valuable subset of programming. Ms. Hamilton suggests that the Sports category — defined as “live telecasts of professional and college team sports” — may be confusing to MVPD executives because they might not “immediately realize” that this definition excludes programming such as “NASCAR and Formula One racing; PGA and LPGA golf tournaments; professional tennis matches; individual and team performance ‘ninja’ and ‘warrior’ races; cycling, running, and swimming competitions; and even the Olympics . . . .”<sup>20</sup> But it is clear from the definition for the Sports category that it includes only professional and college *team* sports. Based on my industry knowledge and experience, MVPD programming executives would not be confused by that definition. It is expressly limited to team sports, and it includes only professional and college sports. Programming executives understand the fundamental difference between a team sport like baseball, and an individual sport like golf, and are not likely to include golf or other individual sports in their valuation of team sports programming. The natural inference from this definition would be to think of the programming associated with the JSC leagues — NFL, MLB, NBA, NCAA and NHL. Games from these leagues are the big ticket items that every MVPD must have in order to compete. They are, more frequently than any other category of programming, the sort of “signature programming” discussed above which MVPDs focus on in making carriage decisions. Given the great importance and value of professional and college team sports in the

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<sup>20</sup> Hamilton Testimony at 11.



industry, it is second nature to think of them as a distinct category. In light of that fact, and the easily comprehensible distinction between team and individual sports, I do not believe programming professionals would be confused by Bortz's definition of the Sports category.

**E. MVPD Expenditures on Sports**

37. Ms. Hamilton states in her testimony that "cable operators spent an average of 33-35% of their overall cable television programming budget on cable sports channels" during the 2010-13 period, with the most significant share of that spending going towards NFL, NBA, NHL and MLB games appearing on national cable networks (like ESPN) and RSNs.<sup>21</sup> In my opinion that number is conservative. In 2016, SNL Kagan estimated that sports programming accounts for 40% of programming costs for cable, satellite and telco video providers. In a 2012 Los Angeles Times article, Cox Cable programming executive Bob Wilson estimated that sports accounted for more than 50% of the bill for Cox's Southern California subscribers.<sup>22</sup> The rising costs of live team sports programming further demonstrates the value of the live sports programs on distant signals at issue in these proceedings.

**V. DR. STECKEL IS INCORRECT TO SUGGEST THAT MVPD EXECUTIVES ARE ILL-EQUIPPED TO PROVIDE RELATIVE VALUATIONS OF PROGRAMMING**

38. In his written direct testimony, Dr. Steckel asserts that because MVPD executives generally make decision about the carriage of networks, as opposed to specific programs, the Bortz (and Horowitz) surveys ask respondents to "make judgments about unfamiliar constructs."<sup>23</sup> I disagree with Dr. Steckel. In my role as a programming executive at DIRECTV during the 2010-13 period, I was attuned to the relative costs and value of the programming on

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<sup>21</sup> Hamilton Testimony at 11-12.

<sup>22</sup> Flint, Joe and Meg James, *Rising Sports Programming Costs Could Have Consumers Crying Foul*, L.A. Times (Dec. 01, 2012), <http://articles.latimes.com/2012/dec/01/business/la-fi-1202-ct-sports-cost-20121202>.

<sup>23</sup> Written Direct Testimony of Joel Steckel, at 24 (Dec. 22, 2016).

the stations that DIRECTV chose to carry. In order to negotiate effectively for carriage of any station, it was necessary for me to be aware of the signature programming carried by that station, and, in many instances, to research what the station had paid for the rights to that programming. Moreover, cable networks and station groups would frequently provide their own analyses during negotiations that highlighted the key programming they offered and what made that individual programming important, in order indicate what made their network or station a good value proposition. It would not have been possible to do my job effectively without analyzing the value of the key programming carried by a station I was considering for carriage on DIRECTV.

39. Moreover, many cable networks focus on carrying particular types of programming: there are sports networks, networks devoted to series and/or movies, news networks, religious programming networks, “PBS look alike” networks, etc. Negotiating the carriage of such networks entails knowledge of the relative value of their content.

40. For these reasons, MVPD programming executives were well-equipped to respond to the relative-value question in the Bortz survey. Dr. Steckel’s analogy to students estimating the size of body parts is inapt.<sup>24</sup> His students are not trained to estimate the size of different body parts and presumably have no experience doing so. But part of the job of the programming executive is to follow the trends on the costs of various types of programming.

41. I also disagree with Dr. Steckel’s suggestion that the Bortz survey’s relative-value question is too complex for programming executives to answer adequately. MVPD

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<sup>24</sup> *Id.*

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programming executives are responsible for negotiating broadcast station and cable network carriage agreements, and therefore understand the categories of programming and what “non-network” means, and (as discussed above) are familiar with the various types of programming addressed by the Bortz survey and their relative values.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 13, 2017.

  
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Daniel M. Hartman



**Before the  
COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

*In re*

## DISTRIBUTION OF CABLE ROYALTY FUNDS

**NO. 14-CRB-0010-CD (2010-13)**

### Written Rebuttal Testimony of

**JONDA K. MARTIN**

**September 15, 2017**

**I. QUALIFICATIONS**

1. I am President of Cable Data Corporation (“CDC”). I have worked at CDC for over 25 years and have been directly involved in all aspects of the company. I received a Bachelor of Science/Business Administration degree from American University in Washington D.C., with concentrations in international business and management of information systems. I also received an MBA from University of Maryland.

2. Since 1979, CDC has collected and analyzed information on Statements of Account (“SOAs”) that cable systems file with the Licensing Division of the Copyright Office. CDC makes this information available to users by purchase, and numerous parties involved in copyright compulsory license proceedings rely on data collected by CDC and reports that CDC generates from those data.

3. I previously testified before the Copyright Arbitration Royalty Panel (“CARP”) regarding CDC’s operations in connection with the CARP’s distribution of 1998 and 1999 cable compulsory license royalties, and before the Copyright Royalty Judges in connection with Phase I and Phase II proceedings regarding the distribution of the 2000-2003 cable royalty funds, a Phase I proceeding regarding the distribution of the 2000-2003 cable royalty funds, a Phase I proceeding regarding the distribution of the 2004 and 2005 cable royalty funds, and a Phase I proceeding regarding the 2004-2009 and 1999-2009 satellite royalty funds. I have also submitted written direct testimony in this proceeding on behalf of Program Suppliers, the Commercial Television Claimants Group, and the Canadian Claimants Group.

**II. PURPOSE OF TESTIMONY**

4. The purpose of my testimony is to describe certain data and reports that I have provided to the Joint Sports Claimants (“JSC”) in connection with these proceedings.

### III. WGN AND TRIBUNE STATIONS CARRIAGE COMPARISON

5. JSC asked me to provide CDC data that would enable them to identify cable systems (CSOs) that carried either WGN without also carrying any non-WGN broadcast stations owned by Tribune Media (“Tribune Media Signals”), or carried a Tribune Media Signal without also carrying WGN. JSC provided me a list of non-WGN Tribune owned stations.

6. To do this, I created two CDC reports. For the first report<sup>1</sup>, I identified all CSOs (including Form 1, 2 and 3 CSOs) that carried WGN on any basis in each accounting period in 2010-2013 that did not also report carriage of any Tribune Media Signals during the same accounting period, regardless of whether the Tribune Media Signal was local or distant, or whether the CSO offered the Tribune Media Signal to a subscriber group that also received WGN.

7. I also created a report<sup>2</sup> to show those CSO carriage instances of Tribune Media Signals in an accounting period in which they did not also carry WGN. For this report, I began by identifying all CSOs (again, including Form 1, 2 and 3 CSOs) that carried Tribune Media Signals on any basis in each accounting period in 2010-2013 and excluded any CSO that also carried WGN on any basis in the same accounting period. The resulting report identified only instances in which a CSO carried a Tribune Media Signal during an accounting period in which it did not also carry WGN on any basis.

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<sup>1</sup> JSC\_SOA\_WGN\_carriage\_without\_SOA\_carriage\_for\_select\_stations\_2010\_2013\_12Sept17.xlsx

<sup>2</sup> JSC\_SOA\_carriage\_for\_select\_stations\_without\_SOA\_WGN\_carriage\_2010\_2013\_12Sept17.xlsx

#### IV. UNIQUE SUBSCRIBER DATA AND TOTAL ROYALTY DATA

8. JSC also requested reports<sup>3</sup> that would show the number of unique subscribers and systems carrying particular signals. Unique subscriber and system data are not typically included in standard CDC data reports, which more frequently identify subscriber and system “instances.” In counting subscriber or system instances, a particular unique subscriber or system may be counted twice. For instance, if the same subscriber receives two distant noncommercial signals, a carriage report showing the number of distant subscriber instances for noncommercial signals would show two distant subscriber instances for noncommercial signals. Similarly, the CSO that provided service to that subscriber would count as two distant system instances for noncommercial signals.

9. I developed a methodology that allows me to count the unique number of subscribers and systems that receive a type of distant signal (e.g., commercial, noncommercial, Canadian, etc.) that does not double-count subscribers and systems receiving or carrying more than one distant signal of any type. To use the example from the previous paragraph, under this methodology, the subscriber receiving two distant noncommercial signals would count as only one unique distant subscriber to noncommercial signals, and the CSO retransmitting those two distant noncommercial signals would count as only one unique distant CSO.

10. I created two reports for JSC that use this kind of unique subscriber data. The first report<sup>4</sup> identifies unique subscriber data for each of the following non-exclusive categories of distant signals, on an accounting period basis: (1) Canadian, (2) Mexican, (3) U.S. Commercial Networks (i.e., ABC, CBS, and NBC affiliates); (4) U.S. Commercial Non-WGN

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<sup>3</sup> JSC\_Unique Subscribers-Systems-Total Royalties by Category\_updated21Aug2017.xlsx; JSC\_PTV-Can only\_uniquesubscribers2010-2013\_updated21Aug2017.xlsx

<sup>4</sup> JSC\_Unique Subscribers-Systems-Total Royalties by Category\_updated21Aug2017.xlsx



(i.e., all non-WGN U.S. independent signals), (5) WGN, and (6) U.S. Non-commercial signals. The second report<sup>5</sup> documents, on an accounting period basis, CSOs that carried only Canadian signals as distant, or only noncommercial distant signals. For these reports, I also identified the number of unique CSOs that carried only Canadian or noncommercial distant signals, as well as the number of unique subscribers to those unique CSOs who received either category of signal.

11. For both of these reports, I also included “total royalty” data. Total royalty data shows the overall amount of royalties paid by the unique CSOs carrying any category of signal (or carrying exclusively Canadian or noncommercial signals) *without* apportioning those royalty payments among the distant signals the CSOs carried. In this way, it differs from the standard fees gen data that CDC regularly provides and which I described, *e.g.*, in my written direct testimony for the Canadian Claimants Group in this proceeding, at pages 2–10, which apportions each distant signal a share of the royalties paid by the systems carrying the signal based on each signal’s prorated DSE value. Prorated DSE is a proprietary CDC metric that discounts, on a CSO-by-CSO basis, the DSE value of a particular distant signal by the proportion of a CSO’s subscribers that actually received the signal on a distant basis. For example, if a CSO provided an independent signal to ten percent of its subscribers on a distant basis (based on gross receipts), that signal would have a prorated DSE value of 0.1 (1 DSE x 10%).

12. As an example, in the 2010-1 accounting period, my data shows that 39 unique CSOs carried Canadian signals. Those 39 CSOs paid a total of approximately \$4.4 million in total royalties — that is the bottom line payment for all of those CSOs, for all of the distant signals that they carried. My reports show this total figure, as well as reporting the amounts of those total royalties that are actually paid as base, 3.75, Syndex and minimum fees.

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<sup>5</sup> JSC\_PTV-Can only\_uniquesubscribers2010-2013\_updated21Aug2017.xlsx

**V. OVERLAPPING CARRIAGE OF COMMERCIAL AND NONCOMMERCIAL SIGNALS**

13. I also created a report<sup>6</sup> focused on the unique CSOs that carried noncommercial signals in each accounting period. In this report, I identified the total number of unique CSOs carrying noncommercial signals, as described above, and also provided total royalty data, as described above. I then provided the following additional data for each accounting period. First, I identified the average number of commercial and noncommercial distant signals each unique CSO in the dataset carried in each accounting period. Second, I identified the average prorated DSE value for the distant commercial and noncommercial signals carried by each unique CSO in the dataset in each accounting period.

**VI. MASKED HOROWITZ SURVEY DATA SETS AND “FILL-IN-THE-BLANKS” ANALYSIS RESULTS**

14. In addition to providing JSC with the custom reports described above, I also provided JSC with data sets<sup>7</sup> (“Masked Horowitz Survey Data Sets”) merging data from spreadsheets that I understand Program Suppliers produced in these proceedings in connection with Howard Horowitz’s survey of cable system operators, and which JSC’s counsel provided to me. These spreadsheets included the following:

- 2010 Survey Full Data Set - Completes and non-completes with codes.xlsx
- 2011 Survey Full Data Set - Completes and non-completes with codes.xlsx
- 2012 Survey Full Data Set - Completes and non-completes with codes.xlsx
- 2013 Survey Full Data Set - Completes and non-completes with codes.xlsx
- MP\_2010-1\_ALLF3sys\_DistantCarriage\_17May11.xlsx
- MPAA\_2011\_1\_F3StudyDetails\_FINAL\_16Apr2012.xlsx
- MPAA\_F3\_Study\_Details\_20121-Allform3sys\_wDist\_9May2013.xls
- MPAA\_F3\_Study\_Details\_20131\_AllF3wDist\_29April2014.xls

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<sup>6</sup> JSC\_F3\_NonCommercial Systems w1plus\_CommercialStation\_wEduCanPDSEs\_2010\_2013\_2Sept17.xlsx

<sup>7</sup> JSC\_2010\_2013\_Masked\_withDistantStations\_MSOchanges\_13July2017.xlsx;  
APKS\_MASKEDSAMPLE\_distant\_carriage\_with\_boc\_and\_ds\_and\_current\_ds\_and\_stratum\_boc\_ExemptSep\_2010\_2013.xlsx.

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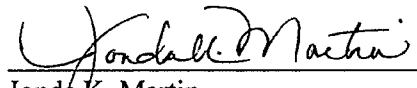
- SampleSelection300Systems.xls
- March2012\_300PSU\_SAMPLE.xlsx
- MPAA\_STRATIFIED\_SYSTEM\_SAMPLE\_BASED\_ON\_20121\_F3WithDistant\_15\_April.xlsx
- SystemSample\_April\_2014\_300\_Selections.xlsx

15. The Masked Horowitz Survey Data Sets CDC created merge together data from these spreadsheets and also include additional data from CDC's database concerning the signal carriage and multiple system operators ("MSOs") associated with the CSOs referenced in the data sets. In order to mask the identity of the CSOs and MSOs referenced in the data sets, CDC replaced all unique CSO and MSO identification numbers with random, anonymized identification numbers.

16. CDC also provided JSC with the results of "fill-in-the-blanks" analyses that I understand Bortz Media & Sports Group designed using the Masked Horowitz Data Sets. JSC's counsel provided these "fill-in-the-blanks" analyses to CDC in the form of a spreadsheet<sup>8</sup> containing pre-populated formulas linked to blank columns for inserting royalty data associated with certain "masked" cable systems. The spreadsheet automatically calculated the results after CDC inserted the missing royalty data, and CDC reported those results to JSC in a separate document.<sup>9</sup>

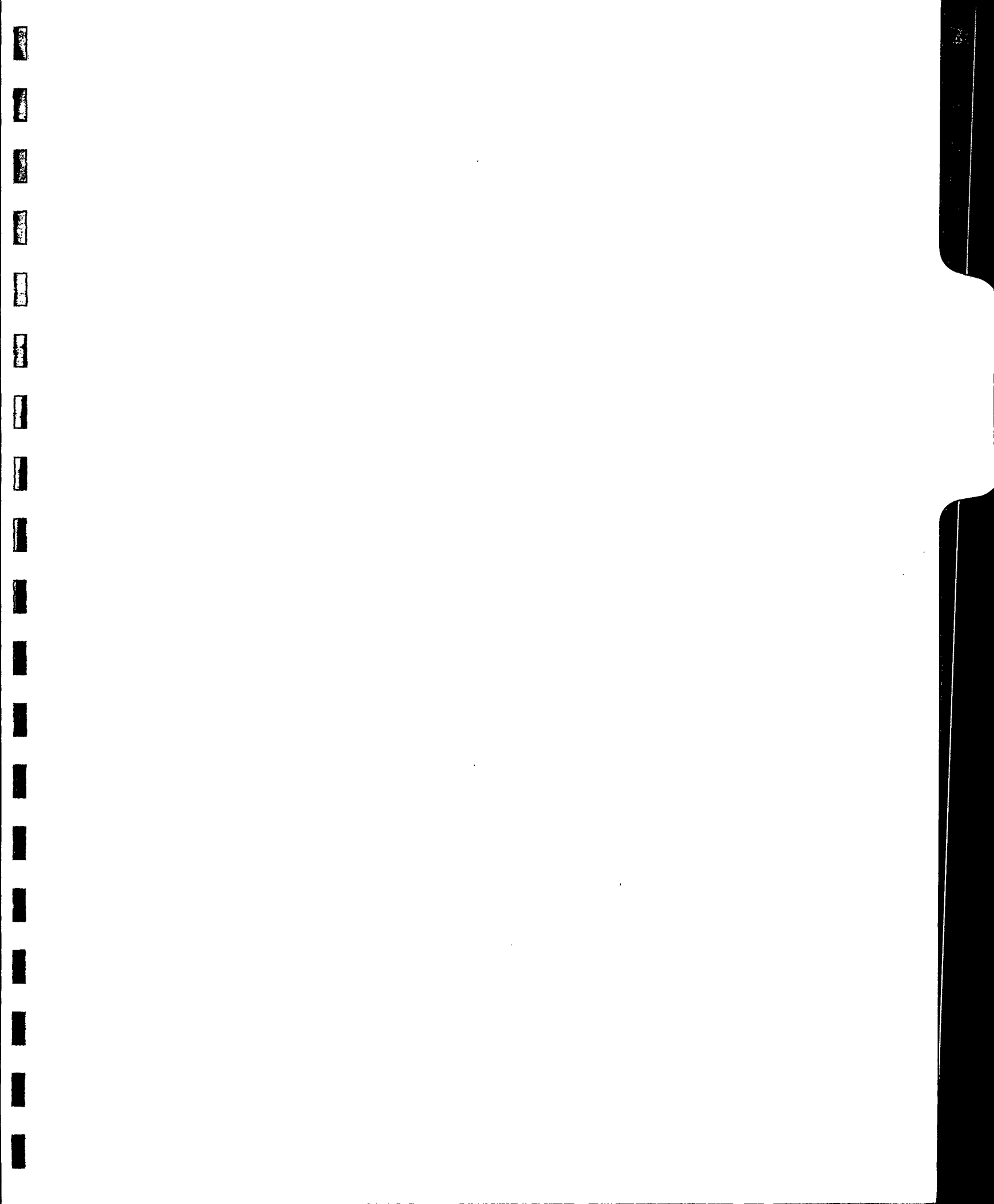
I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 13, 2017

  
Jonda K. Martin

<sup>8</sup> CDC Analysis Version of APKS\_MASKEDSAMPLE\_distant\_carriage\_with\_boc\_and\_....xlsx.

<sup>9</sup> JSC\_CDC Analysis Version of APKS\_SUMMARYTABLE\_2010-2013\_5SEPT17.xlsx.



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**JOINT SPORTS CLAIMANTS' REDACTION LOG FOR WRITTEN REBUTTAL STATEMENT**

*In re* Distribution of Cable Royalty Funds, No. 14-CRB-0010-CD (2010-13)

<b>Tab</b>	<b>Document</b>	<b>Page Number</b>	<b>Basis For Redaction</b>	<b>Description of Redacted Information</b>
1	Written Rebuttal Testimony of James M. Trautman	A-2	Contains confidential, proprietary CDC data.	CDC data on unique distant subscribers by signal type for 2010-2013.
1	Written Rebuttal Testimony of James M. Trautman	B-2 to B-4	Program Suppliers designated source data as RESTRICTED.	Excerpted Gray/Gracenote data on WGNA compensable programs and categorization.
1	Written Rebuttal Testimony of James M. Trautman	C-2 to C-5	Program Suppliers designated source documents containing CDC carriage data as RESTRICTED.	Excerpts of the following documents containing CDC carriage data: <ul style="list-style-type: none"> <li>• MPAA_F3_Study_Details_20131_AllF3wDist_29April2014.xls;</li> <li>• MPAA_F3_Study_Details_20121-Allform3sys_wDist_9May2013.xls;</li> <li>• MPAA_2011_1_F3StudyDetails_FINAL_16Apr2012.xlsx;</li> <li>• MP_2010-1_ALLF3sys_DistantCarriage_17May11.xlsx.</li> </ul>

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Tab	Document	Page Number	Basis For Redaction	Description of Redacted Information
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	13	Contains Lindstrom/Nielsen data that Program Suppliers designated as RESTRICTED.	Lindstrom/Nielsen NPM data.
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	14	Contains Lindstrom/Nielsen data that Program Suppliers designated as RESTRICTED.	Lindstrom/Nielsen NPM data.
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	15	Contains confidential, proprietary Nielsen data.	Nielsen NPM data on distant viewing of compensable programming on WGNA.

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Tab	Document	Page Number	Basis For Redaction	Description of Redacted Information
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	15	Contains Lindstrom/Nielsen data that Program Suppliers designated as RESTRICTED.	Lindstrom/Nielsen NPM data.
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	16	Contains confidential, proprietary Nielsen data.	Nielsen NPM data on distant viewing of compensable programming on WGNA.
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	25	Contains Lindstrom/Nielsen data that Program Suppliers designated as RESTRICTED.	Lindstrom/Nielsen NPM data.

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Tab	Document	Page Number	Basis For Redaction	Description of Redacted Information
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	26	Contains Lindstrom/Nielsen data that Program Suppliers designated as RESTRICTED.	Lindstrom/Nielsen NPM data.
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	C-1	Contains Lindstrom/Nielsen data that Program Suppliers designated as RESTRICTED.	Lindstrom/Nielsen NPM data.
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	D-1	Contains Lindstrom/Nielsen data that Program Suppliers designated as RESTRICTED.	Lindstrom/Nielsen NPM data.



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Tab	Document	Page Number	Basis For Redaction	Description of Redacted Information
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	E-2 to E-26	Contains Lindstrom/Nielsen data that Program Suppliers designated as RESTRICTED.	Lindstrom/Nielsen NPM data.
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	F-1 to F-10	Contains Lindstrom/Nielsen data that Program Suppliers designated as RESTRICTED.	Lindstrom/Nielsen NPM data.
5	William E. Wecker Associates, Inc. Analysis of Written Direct Testimony of Jeffrey S. Gray, Ph.D. in the 2010-2013 Cable Royalty Distribution Proceeding Before the Copyright Royalty Judges	G-1 to G-104	Contains confidential, proprietary Nielsen data.	Nielsen NPM data on distant viewing of compensable programming on WGNA.